STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PUBLIC NOTICE NO. 20210428 IN0062511 – D
DATE OF NOTICE: APRIL 28, 2021
DATE RESPONSE DUE: MAY 28, 2021

The Office of Water Quality proposes the following NPDES DRAFT PERMIT:

MINOR– RENEWAL

IHC CONFINED DISPOSAL FACILITY, Permit No. IN0062511, LAKE COUNTY, 3500 Indianapolis Boulevard, East Chicago, IN. This industrial facility discharges 0.6 million gallons daily of stormwater and process wastewater to Lake George Branch of Indiana Harbor and Canal. Permit Manager: Taylor Wissel, 317/234-4260, twissel@idem.in.gov. Posted online at https://www.in.gov/idem/6408.htm.

PROCEDURES TO FILE A RESPONSE

Draft can be viewed or copied (10¢ per page) at IDEM/OWQ NPDES PS, 100 North Senate Avenue, (Rm 1203) Indianapolis, IN, 46204 (east end elevators) from 9 – 4, Mon - Fri, (except state holidays). A copy of the Draft Permit is on file at the local County Health Department. Please tell others you think would be interested in this matter. For your rights & responsibilities see: Public Participation Guide: http://www.in.gov/idem/5474.htm or Citizens' Guide to IDEM: https://www.in.gov/idem/6900.htm.

Response Comments: The proposed decision to issue a permit is tentative. Interested persons are invited to submit written comments on the Draft permit. All comments must be postmarked no later than the Response Date noted to be considered in the decision to issue a Final permit. Deliver or mail all requests or comments to the attention of the Permit Writer at the above address, (mail code 65-42 PS).

To Request a Public Hearing:

Any person may request a Public Hearing. A written request must be submitted to the above address on or before the Response Date noted. The written request shall include: the name and address of the person making the request, the interest of the person making the request, persons represented by the person making the request, the reason for the request and the issues proposed for consideration at the Hearing. IDEM will determine whether to hold a Public Hearing based on the comments and the rationale for the request. Public Notice of such a Hearing will be published in at least one newspaper in the geographical area of the discharge and sent to anyone submitting written comments and/or making such request and whose name is on the mailing list at least 30 days prior to the Hearing.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

April 28, 2021

VIA ELECTRONIC MAIL

Ms. Linda Sorn, Chief, Engineering and Construction Division
U.S. Army Corps of Engineers (USACE), Chicago District
231 South LaSalle Street, Suite 1500
Chicago, Illinois 60605

Dear Ms. Sorn:

Re: NPDES Permit No. IN0062511
Draft Permit
Indiana Harbor and Canal Confined Disposal Facility
East Chicago, IN – Lake County

Your application and supporting documents have been reviewed and processed in accordance with rules adopted under 327 IAC 5. Enclosed is a copy of the draft NPDES Permit.

Pursuant to IC 13-15-5-1, IDEM will publish the draft permit document online at https://www.in.gov/idem/5474.htm. Additional information on public participation can be found in the "Citizens' Guide to IDEM", available at https://www.in.gov/idem/6900.htm. A 30-day comment period is available to solicit input from interested parties, including the public.

Please review this draft permit and associated documents carefully to become familiar with the proposed terms and conditions. Comments concerning the draft permit should be submitted in accordance with the procedure outlined in the enclosed public notice form. We suggest that you meet with us to discuss major concerns or objections you may have with the draft permit. Questions concerning this draft permit may be addressed to Taylor Wissel of my staff, at 317/234-4260 or twissel@idem.in.gov.

Sincerely,

Nikki Gardner

Nikki Gardner, Chief
Industrial NPDES Permits Section
Office of Water Quality

Enclosures

cc: Lake County Health Department
Le Thai, USACE
IDEM Northwest Regional Office
Nick Ream, IDEM

STATE OF INDIANA

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

AUTHORIZATION TO DISCHARGE UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq., the "Clean Water Act" or "CWA"), and IDEM's authority under IC13-15,

U.S ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT
INDIANA HARBOR AND CANAL CONFINED DISPOSAL FACILITY

is authorized to discharge from a confined disposal facility that is located at 3500 Indianapolis Boulevard, East Chicago, Indiana, to receiving waters identified as the Lake George Branch of the Indiana Harbor Canal in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I and II hereof. This permit may be revoked for the nonpayment of applicable fees in accordance with IC 13-18-20.

Effective Date:_____

Expiration Date:_____

In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Indiana Department of Environmental Management no later than 180 days prior to the date of expiration.

Issued on _____ for the Indiana Department of Environmental Management.

_____
Jerry Dittmer, Chief
Permits Branch
Office of Water Quality

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge from the outfall listed below in accordance with the terms and conditions of this permit. The permittee is authorized to discharge from Outfall 001, located at Latitude 41° 38' 49", Longitude -87° 29' 06". The discharge is limited to dredge water, groundwater, and some stormwater. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into the Lake George Branch of the Indiana Harbor Canal. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS [1][2]
Outfall 001

Table 1

	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
Parameter [7]	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow	Report	Report	MGD	--------	--------	-----	Daily	24-Hr. Total
Oil & Grease	--------	--------	-----	10	15	mg/l	1 X Weekly	Grab
TSS	--------	--------	-----	5	10	mg/l	1 X Weekly	24-Hr. Composite
Benzene	--------	--------	-----	--------	5	µg/l	1 X Weekly	Grab
Naphthalene	--------	--------	-----	--------	10	µg/l	1 X Weekly	24-Hr. Composite
BTEX [11]	--------	--------	-----	--------	100	µg/l	1 X Weekly	Grab
Benzo(a)pyrene	0.00038	0.00090	lbs/day	0.075	0.18	µg/l	1 X Weekly	24-Hr. Composite
Endrin	--------	--------	-----	--------	0.06	µg/l	2 X Monthly	24-Hr. Composite
PCBs [6][8]	0.0000000070	0.000000017[9]	lbs/day	0.0000014	0.0000033	µg/l	2 X Monthly	24-Hr. Composite
Ammonia (as N) [12]								
Summer	5.5	11.0	lbs/day	1.1	2.2	mg/l	1 X Weekly	24-Hr. Composite
Winter	6.0	12.5	lbs/day	1.2	2.5	mg/l	1 X Weekly	24-Hr. Composite
TRC [6][8]	0.045	0.09 [9]	lbs/day	0.009	0.018	mg/l	1 X Weekly	Grab
T. Chromium [4]	0.7	1.4	lbs/day	140	270	µg/l	1 X Weekly	24-Hr. Composite
Hex. Chromium [5]	0.040	0.080	lbs/day	8	16	µg/l	1 X Weekly	Grab
Mercury [4]	0.0000065	0.000016	lbs/day	1.3	3.2	ng/l	6 X Annually [10]	Grab
Copper [4]	0.070	0.14	lbs/day	14	28	µg/l	1 X Weekly	24-Hr. Composite
Zinc [4]	0.55	1.1	lbs/day	110	220	µg/l	1 X Weekly	24-Hr. Composite
Lead [4]	--------	--------	-----	13	22	µg/l	2 X Monthly	24-Hr. Composite
Whole Effluent Toxicity [13]								
Acute	--------	--------	-----	--------	Report	TUa	2 X Annually [14]	24-Hr. Composite
Chronic	--------	--------	-----	1.0	--------	TUc	2 X Annually [14]	24-Hr. Composite

Table 2

	Quality or Concentration			Monitoring Requirements	
Parameter	Daily Minimum	Daily Maximum	Units	Measurement Frequency	Sample Type
pH [3]	6.0	9.0	s.u.	1 X Weekly	Grab

[1] See Part I.B. of the permit for the minimum narrative limitations.

[2] In the event that a new water treatment additive is to be used that will contribute to this Outfall, or changes are to be made in the use of water treatment additives, including dosage, the permittee must apply for and receive approval from IDEM prior to such discharge. Discharges of any such additives must meet Indiana water quality standards. The permittee must apply for permission to use water treatment additives by completing and submitting State Form 50000 (Application for Approval to Use Water Treatment Additives) currently available at: http://www.in.gov/idem/5157.htm

[3] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Monitoring Report form.

[4] The permittee shall measure and report the identified metal as total recoverable metal.

[5] Hexavalent chromium shall be measured and reported as dissolved metal. The hexavalent chromium sample type shall be by grab method. The maximum holding time for a hexavalent chromium sample is 28 days under 40 CFR 136.3(e), Table II. However, as noted in footnote 20 of Table II, to achieve the 28-day holding time, the ammonium sulfate buffer solution specified in EPA Method 218.6 must be used. This holding time allowance of 28-days supersedes the preservation and holding time requirements in the approved hexavalent chromium methods, unless this supersession would compromise the measurement, in which case the preservation and holding time requirements [the sample must be analyzed within 24 hours of collection] in the method must be followed.

[6] The monthly average water quality based effluent limit (WQBEL) for PCBs and total residual chlorine (TRC) are less than the limit of quantitation (LOQ) as specified below in footnote [7]. Compliance with the calculated monthly average limit will be demonstrated if the monthly average effluent level is less than or equal to the monthly average WQBEL. When calculating the monthly average effluent level, daily effluent values that are less than the LOQ, used to determine the monthly average effluent levels less than the LOQ, may be assigned a value of zero (0), unless, after considering the number of monitoring results that are greater than the limit of detection (LOD), and applying appropriate statistical techniques, a value other than zero (0) is warranted.

The daily maximum WQBEL for PCBs and TRC are less than the LOD as specified below in footnote [7]. Compliance with the daily maximum limit will be demonstrated if the observed effluent concentrations are less than the LOD. Effluent levels greater than or equal to the LOD but less than the LOQ are in compliance with the daily maximum WQBEL, except when confirmed by a sufficient number of analyses of multiple samples and use of appropriate statistical techniques.

[7] The following EPA approved test methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM and EPA, if applicable.

Parameter	Test Method	LOD	LOQ
Benzene	602	0.2 µg/l	0.64 µg/l
Naphthalene	610	1.8 µg/l	5.7 µg/l
Benzo(a)pyrene	610	0.023 µg/l	0.073 µg/l
Benzo(a)pyrene	625 with SIM	0.031 µg/l	0.1 µg/l
Endrin	610	0.006 µg/l	0.019 µg/l
*Total PCBs	608	0.1 µg/l	0.3 µg/l
TRC	4500-Cl D-2000, E-2000, or G-2000	0.02 mg/l	0.06 mg/l
Mercury	1631E	0.2 ng/l	0.5 ng/l
*Total PCBs is the sum of the following aroclors: PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, and PCB-1260.			

Case-Specific LOD/LOQ

The permittee may determine and use a case-specific LOD or LOQ using the analytical method specified above, or any other analytical method which is approved by the Commissioner, and EPA if applicable, prior to use. The LOD and LOQ shall be determined as established in 327 IAC 5-2-11.6(h)(2)(B).

[8] The permittee is required to develop and conduct a pollutant minimization program (PMP) for each pollutant with a WQBEL below the LOQ as specified in footnote [7]. See Part I.E. of the permit for the Pollutant Minimization Program (PMP) requirements.

[9] Compliance with the daily maximum mass value for PCBs will be demonstrated if the calculated mass value is less than 0.0015 lbs/day.

Compliance with the daily maximum mass value for TRC will be demonstrated if the calculated mass value is less than 0.3 lbs/day.

[10] Mercury monitoring shall be conducted 6 X annually in the months of February, April, June, August, October, and December of each year for the term of the permit using EPA Test Method 1631, Revision E.

[11] Total BTEX is the sum of benzene (CAS No. 71432); toluene (CAS No. 108883); ethylbenzene (CAS No. 100-41-4); and (m,p,o) xylenes (CAS Nos. 108-88-3, 106-42-3, 95-47-6, and 1330-20-7).

[12] Summer limitations apply from May 1 through November 30. Winter limitations apply from December 1 through April 30.

[13] See Part I.D. of the Permit for Whole Effluent Toxicity Requirements.

[14] Samples shall be taken twice annually, once at any time during each of the following periods:

(A) May-June-July-August; and
(B) September-October-November-December.

For example, in the first period of May-June-July-August the permittee may conduct sampling within the month of May, June, July, or August. The result from this reporting timeframe shall be reported on the August DMR, regardless of which of the months within the period the sample was taken. Results from the second period of September-October-November-December shall be reported on the December DMR.

B. MINIMUM NARRATIVE LIMITATIONS

At all times the discharge from any and all point sources specified within this permit shall not cause receiving waters:

1. including waters within the mixing zone, to contain substances, materials, floating debris, oil, scum attributable to municipal, industrial, agricultural, and other land use practices, or other discharges that do any of the following:

   a. will settle to form putrescent or otherwise objectionable deposits;

   b. are in amounts sufficient to be unsightly or deleterious;

   c. produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;

   d. are in amounts sufficient to be acutely toxic to , or to otherwise severely injure or kill aquatic life, other animals, plants, or humans;

   e. are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.

2. outside the mixing zone, to contain substances in concentrations that on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

C. MONITORING AND REPORTING

1. Representative Sampling

   Samples and measurements taken as required herein shall be representative of the volume and nature of the discharge flow and shall be taken at times which reflect the full range and concentration of effluent parameters normally expected to be present. Samples shall not be taken at times to avoid showing elevated levels of any parameters..

2. Monthly Reporting

   The permittee shall submit federal and state discharge monitoring reports to the Indiana Department of Environmental Management (IDEM) containing results obtained during the previous month and shall be submitted no later than the 28th day of the month following each completed monitoring period. The first report shall be submitted by the 28th day of the month following the month in which the permit becomes effective.

These reports shall include, but not necessarily be limited to, the Discharge Monitoring Report (DMR) and the Monthly Monitoring Report (MMR). All reports shall be submitted electronically by using the NetDMR application, upon registration, receipt of the NetDMR Subscriber Agreement, and IDEM approval of the proposed NetDMR Signatory. Access the NetDMR website (for initial registration and DMR/MMR submittal) via CDX at: https://cdx.epa.gov/. The Regional Administrator may request the permittee to submit monitoring reports to the Environmental Protection Agency if it is deemed necessary to assure compliance with the permit. See Part II.C.10 of this permit for Future Electronic Reporting Requirements.

a. For parameters with monthly average water quality based effluent limitations (WQBELs) below the LOQ, daily effluent values that are less than the limit of quantitation (LOQ) may be assigned a value of zero (0), unless, after considering the number of monitoring results that are greater than the limit of detection (LOD), and applying appropriate statistical techniques, a value other than zero (0) is warranted.

b. For all other parameters for which the monthly average WQBEL is equal to or greater than the LOQ, calculations that require averaging of measurements of daily values (both concentration and mass) shall use an arithmetic mean, except the monthly average for *E. coli* shall be calculated as a geometric mean. Daily effluent values that are less than the LOQ, that are used to determine the monthly average effluent level shall be accommodated in calculation of the average using statistical methods that have been approved by the Commissioner.

c. Effluent concentrations less than the LOD shall be reported on the Discharge Monitoring Report (DMR) forms as < (less than) the value of the LOD. For example, if a substance is not detected at a concentration of 0.1 µg/l, report the value as <0.1 µg/l.

d. Effluent concentrations greater than or equal to the LOD and less than the LOQ that are reported on a DMR shall be reported as the actual value and annotated on the DMR to indicate that the value is not quantifiable.

e. Mass discharge values which are calculated from concentrations reported as less than the value of the limit of detection shall be reported as less than the corresponding mass discharge value.

f. Mass discharge values that are calculated from effluent concentrations greater than the limit of detection shall be reported as the calculated value.

3. Definitions

a. “Monthly Average” means the total mass or flow-weighted concentration of all daily discharges during a calendar month on which daily discharges are sampled or measured, divided by the number of daily discharges sampled and/or measured during such calendar month.

The monthly average discharge limitation is the highest allowable average monthly discharge for any calendar month.

b. “Daily Discharge” means the total mass of a pollutant discharged during the calendar day or, in the case of a pollutant limited in terms other than mass pursuant to 327 IAC 5-2-11(e), the average concentration or other measurement of the pollutant specified over the calendar day or any twenty-four hour period that reasonably represents the calendar day for the purposes of sampling.

c. “Daily Maximum” means the maximum allowable daily discharge for any calendar day.

d. A “24-hour composite sample” means a sample consisting of at least 3 individual flow-proportioned samples of wastewater, taken by the grab sample method or by an automatic sampler, which are taken at approximately equally spaced time intervals for the duration of the discharge within a 24-hour period and which are combined prior to analysis. A flow-proportioned composite sample may be obtained by:

(1) recording the discharge flow rate at the time each individual sample is taken,

(2) adding together the discharge flow rates recorded from each individuals sampling time to formulate the “total flow” value,

(3) the discharge flow rate of each individual sampling time is divided by the total flow value to determine its percentage of the total flow value,

(4) then multiply the volume of the total composite sample by each individual sample’s percentage to determine the volume of that individual sample which will be included in the total composite sample.

e. “Concentration” means the weight of any given material present in a unit volume of liquid. Unless otherwise indicated in this permit, concentration values shall be expressed in milligrams per liter (mg/l).

f. The “Regional Administrator” is defined as the Region 5 Administrator, U.S. EPA, located at 77 West Jackson Boulevard, Chicago, Illinois 60604.

g. The “Commissioner” is defined as the Commissioner of the Indiana Department of Environmental Management, which is located at the following address: 100 North Senate Avenue, Indianapolis, Indiana 46204.

h. “Limit of Detection” or “LOD” means the minimum concentration of a substance that can be measured and reported with ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) for a particular analytical method and sample matrix.

i. “Limit of Quantitation” or “LOQ” means a measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calibrated at a specified concentration above the method detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant. This term is also sometimes called limit quantification or quantification level.

j. “Method Detection Level” or “MDL” means the minimum concentration of an analyte (substance) that can be measured and reported with a ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) as determined by procedure set forth in 40 CFR 136, Appendix B. The method detection level or MDL is equivalent to the LOD.

k. “Grab Sample” means a sample which is taken from a wastestream on a one-time basis without consideration of the flow rate of the wastestream and without considerations of time.

4. Test Procedures

The analytical and sampling methods used shall conform to the version of 40 CFR 136 incorporated by reference in 327 IAC 5. Different but equivalent methods are allowable if they receive the prior written approval of the Commissioner and the U.S. Environmental Protection Agency. When more than one test procedure is approved for the purposes of the NPDES program under 40 CFR 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv).

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall maintain records of all monitoring information and monitoring activities, including:

a. The date, exact place and time of sampling or measurement;

b. The person(s) who performed the sampling or measurements;

c. The date(s) analyses were performed;

d. The person(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such measurements and analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of this monitoring shall be included in the calculation and reporting of the values required in the monthly Discharge Monitoring Report (DMR) and Monthly Monitoring Report (MMR). Such increased frequency shall also be indicated. Other monitoring data not specifically required in this permit (such as internal process or internal waste stream data) which is collected by or for the permittee need not be submitted unless requested by the Commissioner.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years. In cases where the original records are kept at another location, a copy of all such records shall be kept at the permitted facility. The three years shall be extended:

a. automatically during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or regarding promulgated effluent guidelines applicable to the permittee; or

b. as requested by the Regional Administrator or the Indiana Department of Environmental Management.

D. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

To adequately assess the effects of the effluent on aquatic life, the permittee is required by this section of the permit to conduct chronic whole effluent toxicity (WET) testing. Part I.D.1. of this permit describes the testing procedures and Part I.D.2. describes the toxicity reduction evaluation (TRE) which is only required if the effluent demonstrates toxicity in two (2) consecutive toxicity tests as described in Part I.D.1.f.

1. Whole Effluent Toxicity (WET) Tests

The permittee must conduct the series of aquatic toxicity tests specified in Part I.D.1.d. to monitor the acute and chronic toxicity of the effluent discharged from Outfall(s) 001.

If toxicity is demonstrated in two (2) consecutive toxicity tests, as described in Part I.D.1.f., with any test species during the term of the permit, the permittee is required to conduct a TRE under Part I.D.2.

a. Toxicity Test Procedures and Data Analysis

(1) All test organisms, test procedures and quality assurance criteria used must be in accordance with the Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms, Fourth Edition, Section 11, Fathead Minnow (*Pimephales promelas*) Larval Survival and Growth Test Method 1000.0, and Section 13, Daphnid (*Ceriodaphnia dubia*) Survival and Reproduction Test Method 1002.0, EPA 821-R-02-013, October 2002 (hereinafter "Chronic Toxicity Test Method"), or most recent update that conforms to the version of 40 CFR 136 incorporated by reference in 327 IAC 5. [References to specific portions of the Chronic Toxicity Test Method contained in this Part I.D. are provided for informational purposes. If the Chronic Toxicity Test Method is updated, the corresponding provisions of that updated method would be applicable.]

(2) Any circumstances not covered by the above methods, or that require deviation from the specified methods must first be approved by the IDEM Permits Branch.

(3) The determination of acute and chronic endpoints of toxicity (LC_{50}, NOEC and IC_{25} values) must be made in accordance with the procedures in Section 9, "Chronic Toxicity Test Endpoints and Data Analysis" and the Data Analysis procedures as outlined in Section 11 for fathead minnow (Test Method 1000.0; see flowcharts in Figures 5, 6 and 9) and Section 13 for *Ceriodaphnia dubia* (Test Method 1002.0; see flowcharts in Figures 4 and 6) of the Chronic Toxicity Test Method. The IC_{25} value together with 95% confidence intervals calculated by the Linear Interpolation and Bootstrap Methods in Appendix M of the Chronic Toxicity Test Method must be determined in addition to the NOEC value.

b. Types of Whole Effluent Toxicity Tests

(1) Tests may include a 3-brood (7-day) definitive static-renewal daphnid (*Ceriodaphnia dubia*) survival and reproduction toxicity test and a 7-day definitive static-renewal fathead minnow (*Pimephales promelas*) larval survival and growth toxicity test.

(2) All tests must be conducted using 24-hour composite samples of final effluent. Three effluent samples are to be collected on alternate days (e.g., collected on days one, three and five). The first effluent sample will be used for test initiation and for test solution renewal on day 2. The second effluent sample will be used for test solution renewal on days 3 and 4. The third effluent sample will be used for test solution renewal on days 5, 6 and 7. If shipping problems are encountered with renewal samples after a test has been initiated, the most recently used sample may continue to be used for test renewal, if first approved by the IDEM Permits Branch, but for no longer than 72 hours after first use.

(3) The whole effluent dilution series for the definitive test must include a control and at least five effluent concentrations with a minimum dilution factor of 0.5. The effluent concentrations selected must include and, if practicable, bracket the effluent concentrations associated with the determinations of acute and chronic toxicity provided in Part I.D.1.f. Guidance on selecting effluent test concentrations is included in Section 8.10 of the Chronic Toxicity Test Method. The use of an alternate procedure for selecting test concentrations must first be approved by the IDEM Permits Branch.

(4) If, in any control, more than 10% of the test organisms die in the first 48 hours with a daphnid species or the first 96 hours with fathead minnow, or more than 20% of the test organisms die in 7 days, that test is considered invalid and the toxicity test must be repeated. In addition, if in the *Ceriodaphnia dubia* survival and reproduction test, the average number of young produced per surviving female in the control group is less than 15, or if 60% of surviving control females have less than three broods; and in the fathead minnow (*Pimephales promelas*) survival and growth test, if the mean dry weight of surviving fish in the control group is less than 0.25 mg, that test is considered invalid and must also be repeated. All other test conditions and test acceptability criteria for the fathead minnow (*Pimephales promelas*) and *Ceriodaphnia dubia* chronic toxicity tests must be in accordance with the test requirements in Section 11 (Test Method 1000.0), Table 1 and Section 13 (Test Method 1002.0), Table 3, respectively, of the Chronic Toxicity Test Method.

c. Effluent Sample Collection and Chemical Analysis

(1) Whole effluent samples taken for the purposes of toxicity testing must be 24-hour composite samples collected at a point that is representative of the final effluent, but prior to discharge. Effluent sampling for the toxicity testing may be coordinated with other permit sampling requirements as appropriate to avoid duplication. First use of the whole effluent toxicity testing samples must not exceed 36 hours after termination of the 24-hour composite sample collection and must not be used for longer than 72 hours after first use. For discharges of less than 24 hours in duration, composite samples must be collected for the duration of the discharge within a 24-hour period (see “24-hour composite sample” definition in Part I.C.3. of this permit).

(2) Chemical analysis must accompany each effluent sample taken for toxicity testing, including each sample taken for the repeat testing as outlined in Part I.D.1.f.(3). The chemical analysis detailed in Part I.A.1. must be conducted for the effluent sample in accordance with Part I.C.4. of this permit.

d. Toxicity Testing Species, Frequency and Duration

Chronic toxicity testing for *Ceriodaphnia dubia* and fathead minnow (*Pimephales promelas*) must be conducted twice annually, once during the period of May-June-July-August, and once during the period of September-October-November-December for the duration of the permit.

If a TRE is initiated during the term of the permit, after receiving notification under Part I.D.1.e, the Compliance Data Section will suspend the toxicity testing requirements above for the term of the TRE compliance schedule described in Part I.D.2. After successful completion of the TRE, the toxicity tests established under Part I.D.2.c.(4) must be conducted twice annually, once during the period of May-June-July-August, and once during the period of September-October-November-December for the duration of the permit as calculated from the first day of the first month following successful completion of the post-TRE toxicity tests (see Part I.D.2.c.(4)), for the remainder of the permit term.

e. Reporting

(1) Notifications of intent to reduce the number of species tested to the one most sensitive to the toxicity in the effluent under Part I.D.1.d., or notifications of the failure of two (2) consecutive toxicity tests and the intent to begin the implementation of a toxicity reduction evaluation (TRE) under Part I.D.1.f.(4) must be submitted in writing to the Compliance Data Section of IDEM's Office of Water Quality.

(2) Results of all toxicity tests, including invalid tests, must be reported to IDEM according to the general format and content recommended in the Chronic Toxicity Test Method, Section 10, "Report Preparation and Test Review". However, only the results of valid toxicity tests are to be reported on the discharge monitoring report (DMR). The results of the toxicity tests and laboratory report are due by the earlier of 60 days after completion of the test or the 28th day of the month following the end of the period established in Part I.D.1.d.

(3) The full whole effluent toxicity (WET) test laboratory report must be submitted to IDEM electronically as an attachment to an e-mail to the Compliance Data Section at wwreports@idem.IN.gov. The results must also be submitted via NetDMR.

(4) For quality control and ongoing laboratory performance, the laboratory report must include results from appropriate standard reference toxicant tests. This will consist of acute (LC_{50} values), if available, and chronic (NOEC, LOEC and IC_{25} values) endpoints of toxicity obtained from reference toxicant tests conducted within 30 days of the most current effluent toxicity tests and from similarly obtained historical reference toxicant data with mean values and appropriate ranges for each species tested for at least three months to one year. Toxicity test laboratory reports must also include copies of chain-of-custody records and laboratory raw data sheets.

(5) Statistical procedures used to analyze and interpret toxicity data (e.g., Fisher's Exact Test and Steel's Many-one Rank Test for 7-day survival of test organisms; tests of normality (e.g., Shapiro-Wilk's Test) and homogeneity of variance (e.g., Bartlett's Test); appropriate parametric (e.g., Dunnett's Test) and non-parametric (e.g., Steel's Many-one Rank Test) significance tests and point estimates (IC_{25}) of effluent toxicity, etc.; together with graphical presentation of survival, growth and reproduction of test organisms), including critical values, levels of significance and 95% confidence intervals, must be described and included as part of the toxicity test laboratory report.

(6) For valid toxicity tests, the whole effluent toxicity (WET) test laboratory report must include a summary table of the results for each species tested as shown in the table presented below. This table will provide toxicity test results, reported in acute toxic units (TU_a) and chronic toxic units (TU_c), for evaluation under Part I.D.1.f. and reporting on the discharge monitoring report (DMR).

Test Organism [1]	Test Type	Endpoint [2]	Units	Result	Compliance Limit	Pass/ Fail [7]	Reporting
Ceriodaphnia dubia	3-brood (7-day) Definitive Static-Renewal Survival and Reproduction	48-hr. LC_{50}	%	Report			Laboratory Report
			TU_a	Report			
		NOEC Survival	%	Report			
			TU_c	Report			
		NOEC Reproduction	%	Report			
			TU_c	Report			
		IC_{25} Reproduction	%	Report			
			TU_c	Report			
		Toxicity (acute) [3]	TU_a	Report [5]	1.0 [6]	Report	Laboratory Report **and NetDMR** (Parameter Code 61425)
		Toxicity (chronic) [4]	TU_c	Report [5]	1.0	Report	Laboratory Report **and NetDMR** (Parameter Code 61426)
Pimephales promelas	7-day Definitive Static-Renewal Larval Survival and Growth	96-hr. LC_{50}	%	Report			Laboratory Report
			TU_a	Report			
		NOEC Survival	%	Report			
			TU_c	Report			
		NOEC Growth	%	Report			
			TU_c	Report			
		IC_{25} Growth	%	Report			
			TU_c	Report			
		Toxicity (acute) [3]	TU_a	Report [5]	1.0 [6]	Report	Laboratory Report **and NetDMR** (Parameter Code 61427)
		Toxicity (chronic) [4]	TU_c	Report [5]	1.0	Report	Laboratory Report **and NetDMR** (Parameter Code 61428)

[1] For the whole effluent toxicity (WET) test laboratory report, eliminate from the table any species that was not tested.
[2] A separate acute test is not required. The endpoint of acute toxicity must be extrapolated from the chronic toxicity test.
[3] The toxicity (acute) endpoint for *Ceriodaphnia dubia* is the 48-hr. LC_{50} result reported in acute toxic units (TU_a). The toxicity (acute) endpoint for *Pimephales promelas* is the 96-hr. LC_{50} result reported in acute toxic units (TU_a).

[4] The toxicity (chronic) endpoint for *Ceriodaphnia dubia* is the higher of the NOEC Survival, NOEC Reproduction and IC_{25} Reproduction values reported in chronic toxic units (TU_c). The toxicity (chronic) endpoint for *Pimephales promelas* is the higher of the NOEC Survival, NOEC Growth and IC_{25} Growth values reported in chronic toxic units (TU_c).
[5] Report the values for acute and chronic endpoints of toxicity determined in [3] and [4] for the corresponding species. These values are the ones that need to be reported on the discharge monitoring report (DMR).
[6] These values do not represent effluent limitations, but rather exceedance of these values results in a demonstration of toxicity that triggers additional action and reporting by the permittee.
[7] If the toxicity result (in TUs) is less than or equal to the compliance limit, report "Pass". If the toxicity result (in TUs) exceeds the compliance limit, report "Fail".

f. Demonstration of Toxicity

(1) Toxicity (acute) will be demonstrated if the effluent is observed to have exceeded 1.0 TU_a (acute toxic units) for *Ceriodaphnia dubia* in 48 hours or in 96 hours for *Pimephales promelas*. For this purpose, a separate acute toxicity test is not required. The results for the acute toxicity demonstration must be extrapolated from the chronic toxicity test. For the purpose of selecting test concentrations under Part I.D.1.b.(3), the effluent concentration associated with acute toxicity is 100%.

(2) Toxicity (chronic) will be demonstrated if the effluent is observed to have exceeded 1.0 TU_c (chronic toxic units) for *Ceriodaphnia dubia* or *Pimephales promelas* from the chronic toxicity test. For the purpose of selecting test concentrations under Part I.D.1.b.(3), the effluent concentration associated with chronic toxicity is 100%.

(3) If toxicity (acute) or toxicity (chronic) is demonstrated in any of the chronic toxicity tests specified above, a repeat chronic toxicity test using the procedures in Part I.D.1. of this permit and the same test species must be initiated within two (2) weeks of test failure. During the sampling for any repeat tests, the permittee must also collect and preserve sufficient effluent samples for use in any toxicity identification evaluation (TIE) and/or toxicity reduction evaluation (TRE), if necessary.

(4) If any two (2) consecutive chronic toxicity tests, including any and all repeat tests, demonstrate acute or chronic toxicity, the permittee must notify the Compliance Data Section under Part I.D.1.e. within 30 days of the date of termination of the second test, and begin the implementation of a toxicity reduction evaluation (TRE) as described in Part I.D.2. After receiving notification from the permittee, the Compliance Data Section will suspend the whole effluent toxicity testing requirements in Part I.D.1. for the term of the TRE compliance schedule.

g. Definitions

(1) "Acute toxic unit" or "TU_a" is defined as $100/LC_{50}$ where the LC_{50} is expressed as a percent effluent in the test medium of an acute whole effluent toxicity (WET) test that is statistically or graphically estimated to be lethal to fifty percent (50%) of the test organisms.

(2) "Chronic toxic unit" or "TU_c" is defined as 100/NOEC or $100/IC_{25}$, where the NOEC or IC_{25} are expressed as a percent effluent in the test medium.

(3) "Inhibition concentration 25" or "IC_{25}" means the toxicant (effluent) concentration that would cause a twenty-five percent (25%) reduction in a nonquantal biological measurement for the test population. For example, the IC_{25} is the concentration of toxicant (effluent) that would cause a twenty-five percent (25%) reduction in mean young per female or in growth for the test population.

(4) "No observed effect concentration" or "NOEC" is the highest concentration of toxicant (effluent) to which organisms are exposed in a full life cycle or partial life cycle (short term) test, that causes no observable adverse effects on the test organisms, that is, the highest concentration of toxicant (effluent) in which the values for the observed responses are not statistically significantly different from the controls.

2. <u>Toxicity Reduction Evaluation (TRE) Schedule of Compliance</u>

The development and implementation of a TRE is only required if toxicity is demonstrated in two (2) consecutive tests as described in Part I.D.1.f.(4). The post-TRE toxicity testing requirements in Part I.D.2.c. must also be completed as part of the TRE compliance schedule.

Milestone Dates: See a. through e. below for more detail on the TRE milestone dates.

Requirement	Deadline
Development and Submittal of a TRE Plan	Within 90 days of the date of two (2) consecutive failed toxicity tests.
Initiate a TRE Study	Within 30 days of TRE Plan submittal.
Submit TRE Progress Reports	Every 90 days beginning six (6) months from the date of two (2) consecutive failed toxicity tests.
Post-TRE Toxicity Testing Requirements	Immediately upon completion of the TRE, conduct three (3) consecutive months of toxicity tests with both test species; if no acute or chronic toxicity is shown with any test species, reduce toxicity tests to twice annually, once during the period of May-June-July-August, and once during the period of September-October-November-December for the remainder of the permit term. If post-TRE toxicity testing demonstrates toxicity, continue the TRE study.
Submit Final TRE Report	Within 90 days of successfully completing the TRE (including the post-TRE toxicity testing requirements), not to exceed three (3) years from the date that toxicity is initially demonstrated in two (2) consecutive toxicity tests.

a. Development of TRE Plan

Within 90 days of the date of two (2) consecutive failed toxicity tests (i.e. the date of termination of the second test), the permittee must submit plans for an effluent TRE to the Compliance Data Section. The TRE plan must include appropriate measures to characterize the causative toxicants and reduce toxicity in the effluent discharge to levels that demonstrate no toxicity with any test species as described in Part I.D.1.f. Guidance on conducting effluent toxicity reduction evaluations is available from EPA and from the EPA publications listed below:

(1) Methods for Aquatic Toxicity Identification Evaluations:

Phase I Toxicity Characterization Procedures, Second Edition (EPA/600/6-91/003), February 1991.

Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/080), September 1993.

Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/081), September 1993.

(2) Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I (EPA/600/6-91/005F), May 1992.

(3) Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (TREs) (EPA/600/2-88/070), April 1989.

(4) Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program, U.S. EPA, March 27, 2001.

b. Conduct the TRE

Within 30 days after submittal of the TRE plan to the Compliance Data Section, the permittee must initiate the TRE consistent with the TRE plan.

c. Post-TRE Toxicity Testing Requirements

(1) After completing the TRE, the permittee must conduct monthly post-TRE toxicity tests with the two (2) test species *Ceriodaphnia dubia* and fathead minnow (*Pimephales promelas*) for a period of three (3) consecutive months.

(2) If the three (3) monthly tests demonstrate no toxicity with any test species as described in Part I.D.1.f., the TRE will be considered successful. Otherwise, the TRE study must be continued.

(3) The post-TRE toxicity tests must be conducted in accordance with the procedures in Part I.D.1. The results of these tests must be submitted as part of the final TRE Report required under Part I.D.2.d.

(4) After successful completion of the TRE, the permittee must resume the chronic toxicity tests required in Part I.D.1. The established starting date for the frequency in Part I.D.1.d. is the first day of the first month following successful completion of the post-TRE toxicity tests.

d. Reporting

(1) Progress reports must be submitted every 90 days to the Compliance Data Section beginning six (6) months from the date of two (2) consecutive failed toxicity tests. Each TRE progress report must include a listing of proposed activities for the next quarter and a schedule to reduce toxicity in the effluent discharge to acceptable levels through control of the toxicant source or treatment of whole effluent.

(2) Within 90 days of successfully completing the TRE, including the three (3) consecutive monthly tests required as part of the post-TRE toxicity testing requirements in Part I.D.2.c., the permittee must submit to the Compliance Data Section a final TRE Report that includes the following:

(A) A discussion of the TRE results;
(B) The starting date established under Part I.D.2.c.(4) for the continuation of the toxicity testing required in Part I.D.1.; and
(C) If applicable, the intent to reduce the number of species tested to the one most sensitive to the toxicity in the effluent under Part I.D.2.c.(4).

e. Compliance Date

The permittee must complete items a., b., c., and d. from Part I.D.2. and reduce toxicity in the effluent discharge to acceptable levels as soon as possible, but no later than three (3) years from the date that toxicity is initially demonstrated in two (2) consecutive toxicity tests (i.e. the date of termination of the second test) as described in Part I.D.1.f.(4).

E. POLLUTION MINIMIZATION PROGRAM

The permittee is required to develop and conduct a pollutant minimization program (PMP) for each pollutant with a WQBEL below the LOQ. This permit contains a WQBEL below the LOQ for PCBs and TRC.

During the previous permit term, the permittee demonstrated that the discharge of PCBs and TRC, both of which have a WQBEL below the LOQ, is reasonably expected to be in compliance with the WQBEL at the point of discharge into the receiving water. Therefore an updated pollution minimization program is not required.

a. The goal of the pollutant minimization program shall be to maintain the effluent at or below the WQBEL. The pollutant minimization program shall include, but is not limited to, the following:

(1) Submit a control strategy designed to proceed toward the goal within ninety (90) days of the effective date of this permit.

(2) Implementation of appropriate cost-effective control measures, consistent with the control strategy within one hundred and eighty (180) days of the effective date of this permit.

(3) Monitor as necessary to record the progress toward the goal. Potential sources of the pollutant shall be monitored on a semi-annual basis. Quarterly monitoring of the influent of the wastewater treatment system is also required. The permittee may request a reduction in this monitoring requirement after four quarters of monitoring data.

(4) Submit an annual status to the Commissioner at the address listed in Part I.C.3.g. to the attention of the Office of Water Quality, Compliance Data Section, by January 31 of each year that includes the following information:

(i) All minimization program monitoring results for the previous year.

(ii) A list of potential sources of the pollutant.

(iii) A summary of all actions taken to reduce or eliminate the identified sources of the pollutant.

(5) A pollution minimization program may include the submittal of pollution prevention strategies that use changes in production process technology, materials, processes, operations, or procedures to reduce or eliminate the source of the pollutant.

b. No pollution minimization program is required if the permittee demonstrates that the discharge of a pollutant with a WQBEL below the LOQ is reasonably expected to be in compliance with the WQBEL at the point of discharge into the receiving water. This demonstration may include, but is not limited to, the following:

(1) Treatment information, including information derived from modeling the destruction of removal of the pollutant in the treatment process.

(2) Mass balance information.

(3) Fish tissue studies or other biological studies.

c. In determining appropriate cost-effective control measures to be implemented in a pollution minimization program, the following factors may be considered:

(1) Significance of sources.

(2) Economic and technical feasibility.

(3) Treatability.

F. REOPENING CLAUSES

This permit may be modified, or alternately, revoked and reissued, after public notice and opportunity for hearing:

1. to comply with any applicable effluent limitation or standard issued or approved under 301(b)(2)(C),(D) and (E), 304 (b)(2), and 307(a)(2) of the Clean Water Act, if the effluent limitation or standard so issued or approved:

a. contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b. controls any pollutant not limited in the permit.

2. for any of the causes listed under 327 IAC 5-2-16.

3. to include Whole Effluent Toxicity (WET) limitations or to include limitations for specific toxicants if the results of the WET testing and/or the Toxicity Reduction Evaluation (TRE) study indicate that such limitations are necessary.

4. to include a case-specific Limit of Detection (LOD) and/or Limit of Quantitation (LOQ). The permittee must demonstrate that such action is warranted in accordance with the procedures specified under Appendix B, 40 CFR Part 136, using the most sensitive analytical methods approved by EPA under 40 CFR Part 136, or approved by the Commissioner.

5. this permit may be modified or revoked and reissued after public notice and opportunity for hearing to revise or remove the requirements of the pollutant minimization program, if supported by information generated as a result of the program.

6. to specify the use of a different analytical method if a more sensitive analytical method has been specified in or approved under 40 CFR 136 or approved by the Commissioner to monitor for the presence and amount in the effluent of the pollutant for which the WQBEL is established. The permit shall specify, in accordance with 327 IAC 5-2-11.6(h)(2)(B), the LOD and LOQ that can be achieved by use of the specified analytical method.

PART II

STANDARD CONDITIONS FOR NPDES PERMITS

A. GENERAL CONDITIONS

1. Duty to Comply

The permittee shall comply with all terms and conditions of this permit in accordance with 327 IAC 5-2-8(1) and all other requirements of 327 IAC 5-2-8. Any permit noncompliance constitutes a violation of the Clean Water Act and IC 13 and is grounds for enforcement action or permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

2. Duty to Mitigate

In accordance with 327 IAC 5-2-8(3), the permittee shall take all reasonable steps to minimize or correct any adverse impact to the environment resulting from noncompliance with this permit. During periods of noncompliance, the permittee shall conduct such accelerated or additional monitoring for the affected parameters, as appropriate or as requested by IDEM, to determine the nature and impact of the noncompliance.

3. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must obtain and submit an application for renewal of this permit in accordance with 327 IAC 5-2-8(2). It is the permittee's responsibility to obtain and submit the application. In accordance with 327 IAC 5-2-3(c), the owner of the facility or operation from which a discharge of pollutants occurs is responsible for applying for and obtaining the NPDES permit, except where the facility or operation is operated by a person other than an employee of the owner in which case it is the operator's responsibility to apply for and obtain the permit. Pursuant to 327 IAC 5-3-2(a)(2), the application must be submitted at least 180 days before the expiration date of this permit. This deadline may be extended if all of the following occur:

a. permission is requested in writing before such deadline;

b. IDEM grants permission to submit the application after the deadline; and

c. the application is received no later than the permit expiration date.

4. Permit Transfers

In accordance with 327 IAC 5-2-8(4)(D), this permit is nontransferable to any person except in accordance with 327 IAC 5-2-6(c). This permit may be transferred to another person by the permittee, without modification or revocation and reissuance being required under 327 IAC 5-2-16(c)(1) or 16(e)(4), if the following occurs:

a. the current permittee notified the Commissioner at least thirty (30) days in advance of the proposed transfer date;

b. a written agreement containing a specific date of transfer of permit responsibility and coverage between the current permittee and the transferee (including acknowledgment that the existing permittee is liable for violations up to that date, and the transferee is liable for violations from that date on) is submitted to the Commissioner;

c. the transferee certifies in writing to the Commissioner their intent to operate the facility without making such material and substantial alterations or additions to the facility as would significantly change the nature or quantities of pollutants discharged and thus constitute cause for permit modification under 327 IAC 5-2-16(d). However, the Commissioner may allow a temporary transfer of the permit without permit modification for good cause, e.g., to enable the transferee to purge and empty the facility's treatment system prior to making alterations, despite the transferee's intent to make such material and substantial alterations or additions to the facility; and

d. the Commissioner, within thirty (30) days, does not notify the current permittee and the transferee of the intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

The Commissioner may require modification or revocation and reissuance of the permit to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act or state law.

5. Permit Actions

a. In accordance with 327 IAC 5-2-16(b) and 327 IAC 5-2-8(4), this permit may be modified, revoked and reissued, or terminated for cause, including, but not limited to, the following:

1. Violation of any terms or conditions of this permit;

2. Failure of the permittee to disclose fully all relevant facts or misrepresentation of any relevant facts in the application, or during the permit issuance process; or

3. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit, e.g., plant closure, termination of discharge by connection to a POTW, a change in state law that requires the reduction or elimination of the discharge, or information indicating that the permitted discharge poses a substantial threat to human health or welfare.

b. Filing of either of the following items does not stay or suspend any permit condition: (1) a request by the permittee for a permit modification, revocation and reissuance, or termination, or (2) submittal of information specified in Part II.A.3 of the permit including planned changes or anticipated noncompliance.

The permittee shall submit any information that the permittee knows or has reason to believe would constitute cause for modification or revocation and reissuance of the permit at the earliest time such information becomes available, such as plans for physical alterations or additions to the permitted facility that:

1. could significantly change the nature of, or increase the quantity of pollutants discharged; or
2. the commissioner may request to evaluate whether such cause exists.

c. In accordance with 327 IAC 5-1-3(a)(5), the permittee must also provide any information reasonably requested by the Commissioner.

6. Property Rights

Pursuant to 327 IAC 5-2-8(6) and 327 IAC 5-2-5(b), the issuance of this permit does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to persons or private property or invasion of other private rights, any infringement of federal, state, or local laws or regulations. The issuance of the permit also does not preempt any duty to obtain any other state, or local assent required by law for the discharge or for the construction or operation of the facility from which a discharge is made.

7. Severability

In accordance with 327 IAC 1-1-3, the provisions of this permit are severable and, if any provision of this permit or the application of any provision of this permit to any person or circumstance is held invalid, the invalidity shall not affect any other provisions or applications of the permit which can be given effect without the invalid provision or application.

8. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Clean Water Act.

9. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act or state law.

10. Penalties for Violation of Permit Conditions

Pursuant to IC 13-30-4, a person who violates any provision of this permit, the water pollution control laws; environmental management laws; or a rule or standard adopted by the Environmental Rules Board is liable for a civil penalty not to exceed twenty-five thousand dollars ($25,000) per day of any violation.

Pursuant to IC 13-30-5, a person who obstructs, delays, resists, prevents, or interferes with (1) the department; or (2) the department's personnel or designated agent in the performance of an inspection or investigation performed under IC 13-14-2-2 commits a class C infraction.

Pursuant to IC 13-30-10-1.5(e), a person who willfully or negligently violates any NPDES permit condition or filing requirement, or any applicable standards or limitations of IC 13-18-3-2.4, IC 13-18-4-5, IC 13-18-12, IC 13-18-14, IC 13-18-15, or IC 13-18-16, commits a Class A misdemeanor.

Pursuant to IC 13-30-10-1.5(i), an offense under IC 13-30-10-1.5(e) is a Level 4 felony if the person knowingly commits the offense and knows that the commission of the offense places another person in imminent danger of death or serious bodily injury. The offense becomes a Level 3 felony if it results in serious bodily injury to any person, and a Level 2 felony if it results in death to any person.

Pursuant to IC 13-30-10-1.5(g), a person who willfully or recklessly violates any applicable standards or limitations of IC 13-18-8 commits a Class B misdemeanor.

Pursuant to IC 13-30-10-1.5(h), a person who willfully or recklessly violates any applicable standards or limitations of IC 13-18-9, IC 13-18-10, or IC 13-18-10.5 commits a Class C misdemeanor.

Pursuant to IC 13-30-10-1, a person who knowingly or intentionally makes any false material statement, representation, or certification in any NPDES form, notice, or report commits a Class B misdemeanor.

11. Penalties for Tampering or Falsification

In accordance with 327 IAC 5-2-8(10), the permittee shall comply with monitoring, recording, and reporting requirements of this permit. The Clean Water Act, as well as IC 13-30-10-1, provides that any person who knowingly or intentionally (a) destroys, alters, conceals, or falsely certifies a record, (b) tampers with, falsifies, or renders inaccurate or inoperative a recording or monitoring device or method, including the data gathered from the device or method, or (c) makes a false material statement or representation in any label, manifest, record, report, or other document; all required to be maintained under the terms of a permit issued by the department commits a Class B misdemeanor.

12. Toxic Pollutants

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant injurious to human health, and that standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition in accordance with 327 IAC 5-2-8(5). Effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants injurious to human health are effective and must be complied with, if applicable to the permittee, within the time provided in the implementing regulations, even absent permit modification.

13. Wastewater treatment plant and certified operators

The permittee shall have the wastewater treatment facilities under the responsible charge of an operator certified by the Commissioner in a classification corresponding to the classification of the wastewater treatment plant as required by IC 13-18-11-11 and 327 IAC 5-22. In order to operate a wastewater treatment plant the operator shall have qualifications as established in 327 IAC 5-22-7.

327 IAC 5-22-10.5(a) provides that a certified operator may be designated as being in responsible charge of more than one (1) wastewater treatment plant, if it can be shown that he will give adequate supervision to all units involved. Adequate supervision means that sufficient time is spent at the plant on a regular basis to assure that the certified operator is knowledgeable of the actual operations and that test reports and results are representative of the actual operations conditions. In accordance with 327 IAC 5-22-3(11), “responsible charge operator” means the person responsible for the overall daily operation, supervision, or management of a wastewater facility.

Pursuant to 327 IAC 5-22-10(4), the permittee shall notify IDEM when there is a change of the person serving as the certified operator in responsible charge of the wastewater treatment facility. The notification shall be made no later than thirty (30) days after a change in the operator.

14. Construction Permit

In accordance with IC 13-14-8-11.6, a discharger is not required to obtain a state permit for the modification or construction of a water pollution treatment or control facility if the discharger has an effective NPDES permit.

If the discharger modifies their existing water pollution treatment or control facility or constructs a new water pollution treatment or control facility for the treatment or control of any new influent pollutant or increased levels of any existing pollutant, then, within thirty (30) days after commencement of operation, the discharger shall file with the Department of Environment Management a notice of installation for the additional pollutant control equipment and a design summary of any modifications.

The notice and design summary shall be sent to the Office of Water Quality, Industrial NPDES Permits Section, 100 North Senate Avenue, Indianapolis, IN 46204-2251.

15. Inspection and Entry

In accordance with 327 IAC 5-2-8(8), the permittee shall allow the Commissioner, or an authorized representative, (including an authorized contractor acting as a representative of the Commissioner) upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept pursuant to the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit;

c. Inspect at reasonable times any facilities, equipment or methods (including monitoring and control equipment), practices, or operations regulated or required pursuant to this permit; and

d. Sample or monitor at reasonable times, any discharge of pollutants or internal wastestreams for the purposes of evaluating compliance with the permit or as otherwise authorized.

16. New or Increased Discharge of Pollutants

This permit prohibits the permittee from undertaking any action that would result in a new or increased discharge of a bioaccumulative chemical of concern (BCC) or a new or increased permit limit for a regulated pollutant that is not a BCC unless one of the following is completed prior to the commencement of the action:

a. Information is submitted to the Commissioner demonstrating that the proposed new or increased discharges will not cause a significant lowering of water quality as defined under 327 IAC 2-1.3-2(50). Upon review of this information, the Commissioner may request additional information or may determine that the proposed increase is a significant lowering of water quality and require the submittal of an antidegradation demonstration.

b. An antidegradation demonstration is submitted to and approved by the Commissioner in accordance with 327 IAC 2-1.3-5 and 327 IAC 2-1.3-6.

B. MANAGEMENT REQUIREMENTS

1. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and efficiently operate all facilities and systems (and related appurtenances) for the collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of this permit in accordance with 327 IAC 5-2-8(9).

Neither 327 IAC 5-2-8(9), nor this provision, shall be construed to require the operation of installed treatment facilities that are unnecessary for achieving compliance with the terms and conditions of the permit.

2. Bypass of Treatment Facilities

Pursuant to 327 IAC 5-2-8(12), the following are requirements for bypass:

a. The following definitions:

(1) “Bypass” means the intentional diversion of a waste stream from any portion of a treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. The permittee may allow a bypass to occur that does not cause a violation of the effluent limitations contained in this permit, but only if it is also for essential maintenance to assure efficient operation. These bypasses are not subject to Part II.B.2.c. and d.

c. The permittee must provide the Commissioner with the following notice:

(1) If the permittee knows or should have known in advance of the need for a bypass (anticipated bypass), it shall submit prior written notice. If possible, such notice shall be provided at least ten (10) days before the date of the bypass for approval by the Commissioner.

(2) As required by 327 IAC 5-2-8(11)(C), the permittee shall orally report an unanticipated bypass that exceeds any effluent limitations in the permit within twenty-four (24) hours from the time the permittee becomes aware of such noncompliance. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and if the cause of noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. If a complete report is submitted by e-mail within 24 hours of the noncompliance, then that e-mail report will satisfy both the oral and written reporting requirement. E-mails should be sent to wwreports@idem.in.gov.

d. The following provisions are applicable to bypasses:

(1) Except as provided by Part II.B.2.b., bypass is prohibited, and the Commissioner may take enforcement action against a permittee for bypass, unless the following occur:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance.

(C) The permittee submitted notices as required under Part II.B.2.c.

(2) The Commissioner may approve an anticipated bypass, after considering its adverse effects, if the Commissioner determines that it will meet the conditions listed above in Part II.B.2.d.(1). The Commissioner may impose any conditions determined to be necessary to minimize any adverse effects.

e. Bypasses that result in death or acute injury or illness to animals or humans must be reported in accordance with the "Spill Response and Reporting Requirements" in 327 IAC 2-6.1, including calling 888/233-7745 as soon as possible, but within two (2) hours of discovery. However, under 327 IAC 2-6.1-3(1), when the constituents of the bypass are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

3. Upset Conditions

Pursuant to 327 IAC 5-2-8(13):

a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph c of this section, are met.

c. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:

(1) An upset occurred and the permittee has identified the specific cause(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee complied with any remedial measures required under Part II.A.2; and

(4) The permittee submitted notice of the upset as required in the "Twenty-Four Hour Reporting Requirements," Part II.C.3, or 327 IAC 2-6.1, whichever is applicable. However, under 327 IAC 2-6.1-3(1), when the constituents of the discharge are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

d. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof pursuant to 40 CFR 122.41(n)(4).

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State and to be in compliance with all Indiana statutes and regulations relative to liquid and/or solid waste disposal. The discharge of pollutants in treated wastewater is allowed in compliance with the applicable effluent limitations in Part I. of this permit.

C. REPORTING REQUIREMENTS

1. Planned Changes in Facility or Discharge

Pursuant to 327 IAC 5-2-8(11)(F), the permittee shall give notice to the Commissioner as soon as possible of any planned physical alterations or additions to the permitted facility. In this context, permitted facility refers to a point source discharge, not a wastewater treatment facility. Notice is required only when either of the following applies:

a. The alteration or addition may meet one of the criteria for determining whether the facility is a new source as defined in 327 IAC 5-1.5.

b. The alteration or addition could significantly change the nature of, or increase the quantity of, pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in Part I.A. nor to notification requirements in Part II.C.9. of this permit.

Following such notice, the permit may be modified to revise existing pollutant limitations and/or to specify and limit any pollutants not previously limited.

2. Monitoring Reports

Pursuant to 327 IAC 5-2-8(10) and 327 IAC 5-2-13 through 15, monitoring results shall be reported at the intervals and in the form specified in "Discharge Monitoring Reports", Part I.C.2.

3. Twenty-Four Hour Reporting Requirements

Pursuant to 327 IAC 5-2-8(11)(C), the permittee shall orally report to the Commissioner information on the following types of noncompliance within 24 hours from the time permittee becomes aware of such noncompliance. If the noncompliance meets the requirements of item b (Part II.C.3.b) or 327 IAC 2-6.1, then the report shall be made within those prescribed time frames. However, under 327 IAC 2-6.1-3(1), when the constituents of the discharge that is in noncompliance are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

a. Any unanticipated bypass which exceeds any effluent limitation in the permit;

b. Any noncompliance which may pose a significant danger to human health or the environment. Reports under this item shall be made as soon as the permittee becomes aware of the noncomplying circumstances;

c. Any upset (as defined in Part II.B.3 above) that causes an exceedance of any effluent limitation in the permit; or

d. Violation of a maximum daily discharge limitation for any of the following toxic pollutants: benzene, naphthalene, benzo(a)pyrene, endrin, PCBs, total chromium, hexavalent chromium, mercury, copper, zinc, or lead.

The permittee can make the oral reports by calling (317)232-8670 during regular business hours and asking for the Compliance Data Section or by calling (317) 233-7745 ((888)233-7745 toll free in Indiana) during non-business hours.

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce and eliminate the noncompliance and prevent its recurrence. The Commissioner may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. Alternatively the permittee may submit a "Bypass/Overflow Report" (State Form 48373) or a "Noncompliance 24-Hour Notification Report" (State Form 52415), whichever is appropriate, to IDEM at (317) 232-8637 or wwreports@idem.in.gov. If a complete e-mail submittal is sent within 24 hours of the time that the permittee became aware of the occurrence, then the email report will satisfy both the oral and written reporting requirements.

4. Other Compliance/Noncompliance Reporting

Pursuant to 327 IAC 5-2-8(11)(D), the permittee shall report any instance of noncompliance not reported under the "Twenty-Four Hour Reporting Requirements" in Part II.C.3, or any compliance schedules at the time the pertinent Discharge Monitoring Report is submitted. The report shall contain the information specified in Part II.C.3;

The permittee shall also give advance notice to the Commissioner of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements; and

All reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

5. Other Information

Pursuant to 327 IAC 5-2-8(11)(E), where the permittee becomes aware of a failure to submit any relevant facts or submitted incorrect information in a permit application or in any report, the permittee shall promptly submit such facts or corrected information to the Commissioner.

6. Signatory Requirements

Pursuant to 327 IAC 5-2-22 and 327 IAC 5-2-8(15):

a. All reports required by the permit and other information requested by the Commissioner shall be signed and certified by a person described below or by a duly authorized representative of that person:

(1) For a corporation: by a responsible corporate officer. A "responsible corporate officer" means either of the following:

a. A president, secretary, treasurer, any vice president of the corporation in charge of a principal business function, or any other person who performs similar policymaking or decision making functions for the corporation; or

b. The manager of one (1) or more manufacturing, production, or operating facilities provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty to make major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a Federal, State, or local governmental body or any agency or political subdivision thereof: by either a principal executive officer or ranking elected official.

(4) Under the proposed Federal E-Reporting Rule, a method will be developed for submittal of all affected reports and documents using electronic signatures that is compliant with the Cross-Media Electronic Reporting Regulation (CROMERR). Enrollment and use of NetDMR currently provides for CROMERR-compliant report submittal.

b. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above.

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or a position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The authorization is submitted to the Commissioner.

c. Electronic Signatures. If documents described in this section are submitted electronically by or on behalf of the NPDES-regulated facility, any person providing the electronic signature for such documents shall meet all relevant requirements of this section, and shall ensure that all of the relevant requirements of 40 CFR part 3 (including, in all cases, subpart D to part 3) (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

d. Certification. Any person signing a document identified under Part II.C.6. shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

7. Availability of Reports

Except for data determined to be confidential under 327 IAC 12.1, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Indiana Department of Environmental Management and the Regional Administrator. As required by the Clean Water Act, permit applications, permits, and effluent data shall not be considered confidential.

8. Penalties for Falsification of Reports

IC 13-30 and 327 IAC 5-2-8(15) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance, shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 180 days per violation, or by both.

9. Changes in Discharge of Toxic Substances

Pursuant to 327 IAC 5-2-9, the permittee shall notify the Commissioner as soon as it knows or has reason to know:

a. That any activity has occurred or will occur which would result in the discharge of any toxic pollutant that is not limited in the permit if that discharge will exceed the highest of the following notification levels.

(1) One hundred micrograms per liter (100 µg/l);

(2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

(4) A notification level established by the Commissioner on a case-by-case basis, either at the Commissioner's own initiative or upon a petition by the permittee. This notification level may exceed the level specified in subdivisions (1), (2), or (3) but may not exceed the level which can be achieved by the technology-based treatment requirements applicable to the permittee under the CWA (see 327 IAC 5-5-2).

b. That it has begun or expects to begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant that was not reported in the permit application under 40 CFR 122.21(g)(9). However, this subsection b. does not apply to the permittee's use or manufacture of a toxic pollutant solely under research or laboratory conditions.

10. Future Electronic Reporting Requirements

IDEM is currently developing the technology and infrastructure necessary to allow compliance with the EPA Phase 2 e-reporting requirements per 40 CFR 127.16 and to allow electronic reporting of applications, notices, plans, reports, and other information not covered by the federal e-reporting regulations.

IDEM will notify the permittee when IDEM's e-reporting system is ready for use for one or more applications, notices, plans, reports, or other information. This IDEM notice will identify the specific applications, notices, plans, reports, or other information that are to be submitted electronically and the permittee will be required to use the IDEM electronic reporting system to submit the identified application(s), notice(s), plan(s), report(s), or other information.

See Part I.C.2. of this permit for the current electronic reporting requirements for the submittal of monthly monitoring reports such as the Discharge Monitoring Report (DMR) and the Monthly Monitoring Report (MMR).

National Pollutant Discharge Elimination System
Briefing Memo for
Indiana Harbor and Canal Confined Disposal Facility
Draft: April 2021

Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

Permittee:	U.S. Army Corps of Engineers, Chicago District 231 South LaSalle Street, Suite 1500 Chicago, Illinois 60604
Existing Permit Information:	Permit Number: IN0062511 Expiration Date: August 31, 2021
Facility Contact:	Le Thai, Environmental Engineer (312) 890-3843 or le.t.thai@usace.army.mil
Facility Location:	3500 Indianapolis Boulevard East Chicago, Indiana 46312 Lake County
Receiving Stream(s):	Lake George Branch of the Indiana Harbor and Canal
GLI/Non-GLI:	GLI
Proposed Permit Action:	Renew
Date Application Received:	February 25, 2021
Source Category	NPDES Minor – Industrial
Permit Writer:	Taylor Wissel, Senior Environmental Manager (317) 234-4260 or twissel@idem.in.gov

Table of Contents

1.0 INTRODUCTION

The Indiana Department of Environmental Management (IDEM) received a National Pollutant Discharge Elimination System (NPDES) Permit application from the U.S. Army Corps of Engineers (USACE), Chicago District, on February 25, 2021.

In accordance with 327 IAC 5-2-6(a), the current five year permit was issued with an effective date of September 1, 2016. A five year permit is proposed in accordance with 327 IAC 5-2-6(a).

The Federal Water Pollution Control Act (more commonly known as the Clean Water Act), as amended, (Title 33 of the United States Code (U.S.C.) Section 1251 *et seq.*), requires an NPDES permit for the discharge of pollutants into surface waters. Furthermore, Indiana law requires a permit to control or limit the discharge of any contaminants into state waters or into a publicly owned treatment works. This proposed permit action by IDEM complies with and implements these federal and state requirements.

In accordance with Title 40 of the Code of Federal Regulations (CFR) Section 124.7, as well as Title 327 of the Indiana Administrative Code (IAC) 327 Article 5-3-7, a Statement of Basis, or Briefing Memo, is required for certain NPDES permits. This document fulfills the requirements established in these regulations. This Briefing Memo was prepared in order to document the factors considered in the development of NPDES Permit effluent limitations. The technical basis for the Briefing Memo may consist of evaluations of promulgated effluent guidelines, existing effluent quality, receiving water conditions, Indiana water quality standards-based wasteload allocations, and other information available to IDEM. Decisions to award variances to Water Quality Standards or promulgated effluent guidelines are justified in the Briefing Memo where necessary.

2.0 FACILITY DESCRIPTION

2.1 General

The Indiana Harbor and Canal Confined Disposal Facility is classified under Standard Industrial Classification (SIC) Code 9999 – Non-Classifiable Establishments.

The USACE – Chicago District is responsible for maintaining the navigational channel of the Indiana Harbor and Canal (IHC) through periodic dredging operations. The IHC is a manmade canal located in East Chicago, Indiana and serves as an industrial corridor between the Grand Calumet River and Lake Michigan. Large commercial shipping vessels coming from Lake Michigan access steel mills and petroleum refineries in the area via the IHC. Sediment accumulation in the IHC has made navigation of this shipping channel difficult. This sediment is contaminated with a wide variety of pollutants originating from the various industries and municipalities that have discharged untreated effluents to the canal over the years.

To remove accumulated sediments and to maintain the channel, the USACE dredges the IHC on an approximately annual basis. IHC dredging started in 2012 after a 40-year period of no dredging. The WWTP described herein is part of the IHC dredging and sediment disposal to an onshore confined disposal facility (CDF) located in East Chicago, Indiana.

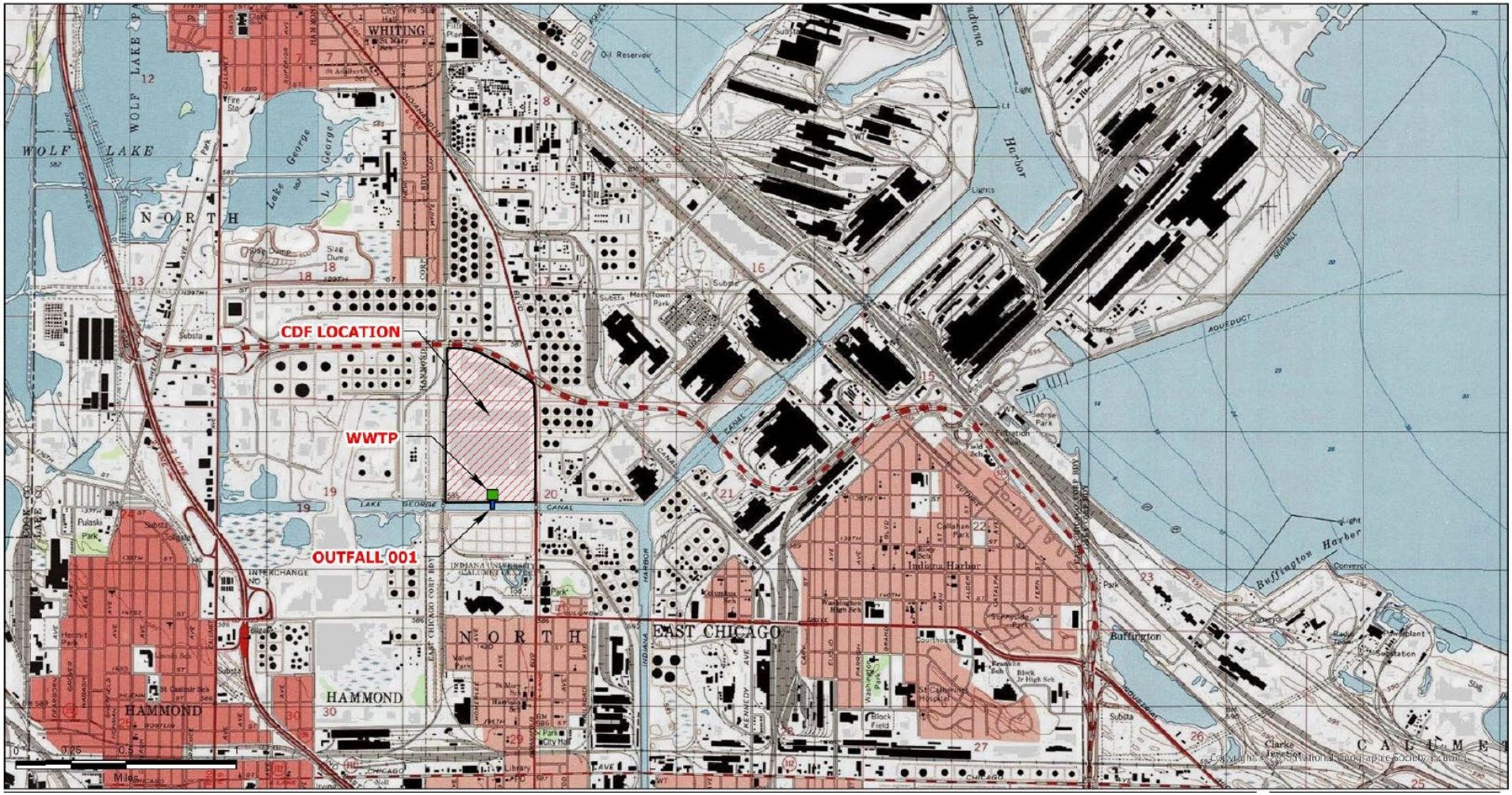
Sediment is removed from the IHC using mechanical dredging. The dredged material is hydraulically placed into the CDF. The dredge water is recycled during sediment placement to minimize water volume to be used for sediment placement. The CDF consists of a diked, above-ground earthen impoundment area. Water from the CDF consists of porewater from the sediment, groundwater from the site, and precipitation runoff that falls on-site and comes in contact with the sediment. Typically, the water is held in the ponded CDF for several months before being sent to a treatment plant on site, followed by discharge to the Lake George Branch of the IHC. A map showing the location of the facility has been included as Figure 1.

2.2 Outfall Locations

Outfall 001*	Latitude:	41° 38’ 49” N
	Longitude:	87° 29’ 06” W

*The Geographic Information Systems (GIS) coordinates for Outfall 001 contained in the previous permit were found to be incorrect. Based on a conversation with the facility, the coordinates have been updated to better reflect the location of Outfall 001.

Figure 1: Facility Location



3500 Indianapolis Boulevard
East Chicago, Indiana
Lake County

2.3 Wastewater Treatment

As water sits in the CDF cells, natural physical, chemical, and biological processes occur in the pond and generally result in improved water quality in the CDF. A package plant consisting of vendor owned and operated equipment is used to treat the ponded water at the IHC CDF. The current IHC CDF treatment plant contract ends September 2021. A new water treatment contract will be procured to replace the current contract.

The average treatment volume is 40 to 50 million gallons per year for the ponded CDF and is determined primarily by annual precipitation and evaporation, with a contribution of porewater from dredged sediment and groundwater from the gradient control system. A volume of up to 80 million gallons may be treated and discharged from the CDF in a year due to yearly fluctuations in annual precipitation and generated dredge water, as well as having no treatment for a year due to the capacity of the CDF to hold water. It should be noted that there will be no dredging and sediment disposal to the CDF for the years 2021 through 2023, when construction to increase CDF dike height is occurring. However, it is expected that water treatment will be occurring as needed during this period. Anticipating a 3 to 4 month operating period (including plant startup and shutdown) for each year of operation, the WWTP flow rate ranges between 500 to 700 gallons per minute. A system designed for these flow rates will have the flexibility to treat the fluctuations anticipated by decreasing or increasing the operating period. It should be noted that the actual design of the package WWTP may have a different capacity (from 500 gpm to 700 gpm) as the CDF operation contractor optimizes the plant design for most efficient operation (e.g., a smaller plant treating water over a longer operating period, or a larger plant not operating 24 hours per day.)

The facilities provided at the CDF site for a package wastewater treatment plant include electrical connections, a material storage pad, and a pad for placing a package plant. The wastewater treatment plant pad is located on the south side of the facility. Water to be treated is drawn from the CDF from a decant structure, and is pumped to the wastewater treatment plant. After treatment, the water is discharged to the Lake George Branch of the canal.

Because the WWTP will be a package plant, the exact processes needed to meet the effluent quality required in the NPDES permit will be determined by the contractor. There are multiple processes that could be used. Carbon filtration will be the only requirement for all treatment plants operating at the IHC CDF. Currently, the treatment process includes ponding in the CDF for several months, filtration, and an activated carbon filter for removal of trace bioaccumulative compounds (organics) and bag filters for final polishing. Alum and/or chlorine is added as needed for high TSS and ammonia, respectively. Dechlorination is included when chlorine is added for ammonia removal.

The sludge generated during the treatment process by the WWTP is disposed within the CDF. Activated carbon is regenerated or disposed offsite as appropriate. Other waste generated is disposed at licensed commercial waste management facilities as appropriate.

The wastewater treatment system has an average discharge of approximately 0.6 MGD. A Water Balance Diagram has been included as Figure 2.

Figure 2: Water Balance Diagram

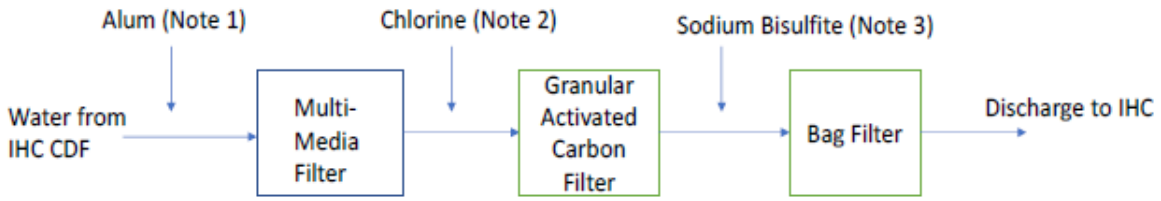


Figure 3. IHC CDF Wastewater Treatment Plant Process Diagram (Note 4)

NOTES:

Note 1: Alum (aluminum sulfate) is added as required to remove high Total Suspended Solids
Note 2: Chlorine (sodium hypochlorite) is added as required to remove Ammonia. Low levels of Ammonia are observed in summer and chlorine addition is not required when ammonia levels are below NPDES permit limits in the WWTP influent.
Note 3: Sodium Bisulfite is added to remove residual chlorine during chlorination.
Note 4: The process diagram is for the current plant at the IHC CDF is presented above. The current IHC CDF treatment plant contract ends September 2021 and a new contract will begin thereafter. The new treatment process may be different from the current plant. Granular activated carbon will be a required component of the future treatment plant.

Outfall 001: The average daily discharge from Outfall 001 to the Lake George Branch of the Indiana Harbor Canal is 0.6 MGD. The design flow (highest monthly average) based on the most recent 2 years of data is 0.68 MGD.

The permittee shall have the wastewater treatment facilities under the responsible charge of an operator certified by the Commissioner in a classification corresponding to the classification of the wastewater treatment plant as required by IC 13-18-11-11 and 327 IAC 5-22-5. In order to operate a wastewater treatment plant the operator shall have qualifications as established in 327 IAC 5-22-7. IDEM has given the permittee a **Class D** industrial wastewater treatment plant classification.

2.4 Changes in Operation

The permittee noted in the application that there will be construction activities occurring from 2021 through 2023 to increase the dike height of the CDF. As a result of this construction, there will no longer be a separate 'East' and 'West' cell of the CDF. The permittee will be raising the water level in the CDF to a level that will inundate the dike separating the two cells, which will create a single, large cell.

2.5 Facility Storm Water

Storm water associated with this facility consists only of storm water that falls within the CDF cells. This water would be treated along with the supernatant of the cells prior to discharge to the Lake George Branch of the IHC. IDEM is not including any additional storm water requirements including a storm water pollution prevention plan (SWPPP) in this renewal.

3.0 PERMIT HISTORY

3.1 Compliance History

The purpose of this section is to summarize any violations and enforcement actions associated with the permit.

A review of this facility's discharge monitoring data was conducted for compliance verification. This review indicates permit limitation violations at Outfall 001 between January 2018 and December 2020. A list of the violations is included as Appendix A at the end of this Briefing Memo. There are no pending or current enforcement actions regarding this NPDES permit.

4.0 LOCATION OF DISCHARGE/RECEIVING WATER USE DESIGNATION

The receiving stream for Outfall 001 is the Lake George Branch of the Indiana Harbor Canal. The $Q_{7,10}$ low flow value of the Lake George Branch of the Indiana Harbor Canal is 0.0 cfs and shall be capable of supporting a well-balanced, warm water aquatic community and full body contact recreation in accordance with 327 IAC 2-1.5-5.

The permittee discharges to a waterbody that has been identified as a water of the state within the Great Lakes system. Therefore it is subject to NPDES requirements specific to Great Lakes system dischargers under 327 IAC 2-1.5 and 327 IAC 5-2-11.4 through 11.6. These rules contain water quality standards applicable to dischargers within the Great Lakes system and the procedures to calculate and incorporate water quality-based effluent limitations.

4.1 Total Maximum Daily Loads (TMDLs)

Section 303(d) of the Clean Water Act requires states to identify waters, through their Section 305(b) water quality assessments, that do not or are not expected to meet applicable water quality standards with federal technology based standards alone. States are also required to develop a priority ranking for these waters taking into account the severity of the pollution and the designated uses of the waters. Once this listing and ranking of impaired waters is completed, the states are required to develop Total Maximum Daily Loads (TMDLs) for these waters in order to achieve compliance with the water quality standards. Indiana's 2018 303(d) List of Impaired Waters was developed in accordance with Indiana's Water Quality Assessment and 303(d) Listing Methodology for Waterbody Impairments and Total Maximum Daily Load Development for the 2018 Cycle.

The Lake George Branch of the Indiana Harbor Canal, Assessment-Unit INC0163_T1001, HUC 040400010603, is on the 2018 303(d) list for E. coli, PCBs in fish tissue, and oil & grease. A TMDL for the Lake George Branch of the Indiana Harbor Canal is not currently planned.

5.0 PERMIT LIMITATIONS

Under 327 IAC 5-2-10 (see also 40 CFR 122.44), NPDES permit limits are based on either TBELs (including TBELs developed on a case-by-case basis using BPJ, where applicable) or WQBELs, whichever is most stringent. The decision to limit or monitor the parameters contained in this permit is based on information contained in the permittee's NPDES application, and other available information relating to the facility and the receiving waterbody. In addition, when renewing a permit, the existing permit limits and the antibacksliding requirements under 327 IAC 5-2-10(a)(11) must be considered.

5.1 Technology-Based Effluent Limits (TBEL)

TBELs require every individual member of a discharge class or category to operate their water pollution control technologies according to industry-wide standards and accepted engineering practices. TBELs are developed by applying the National Effluent Limitation Guidelines (ELGs) established by EPA for specific industrial categories. Technology-based treatment requirements established pursuant to sections 301(b) and 306 of the CWA represent the minimum level of control that must be imposed in an NPDES permit (327 IAC 5-5-2(a)).

In the absence of ELGs, TBELs can also be established on a case-by-case basis using best professional judgment (BPJ) in accordance with 327 IAC 5-2-10 and 327 IAC 5-5 (which implement 40 CFR 122.44, 125.3, and Section 402(a)(1) of the Clean Water Act (CWA)).

BEST PROFESSIONAL JUDGEMENT (BPJ)

EPA develops effluent limitation guidelines (ELGs) for existing industrial and commercial activities as directed in the 1972 amendments of the Clean Water Act. The federal effluent limitation guidelines and standards are located at 40 CFR 403 through 471, inclusive, and are incorporated into Indiana law at 327 IAC 5-2-1.5. In Indiana, NPDES permits are required to ensure compliance with these federal effluent limitation guidelines and standards under 327 IAC 5-2-10(a)(1), 327 IAC 5-2-10(a)(2), and 327 IAC 5-5-2. ELGs are technology-based effluent limitations (TBELs). The intent of a TBEL is to require a minimum level of treatment for industrial point sources based on currently available treatment technologies. Where EPA has not yet developed guidelines for a particular industry, best professional judgment (BPJ) may be used to develop case-by-case technology-based permit limitations under 327 IAC 5-5-2 and 5-2-10 (see also 40 CFR 122.44 and 125.3, and Section 402(a)(1) of the Clean Water Act).

ELGs have not yet been developed specifically for this type of discharge. Therefore, as provided by law, IDEM may establish TBELs in the proposed permit utilizing BPJ to meet the requirements of Best Conventional Pollutant Control Technology and Best Available Technology Economically Achievable (BCT/BAT).

5.2 Water Quality-Based Effluent Limits

WQBELs are designed to be protective of the beneficial uses of the receiving water and are independent of the available treatment technology. The WQBELs for this facility are based on water quality criteria in 327 IAC 2-1.5-8 or developed under the procedures described in 327 IAC 2-1.5-11 through 16 and implementation procedures in 327 IAC 5. Limitations are required for any parameter which has the reasonable potential to exceed a water quality criterion as determined using the procedures under 327 IAC 5-2-11.5.

5.3 Effluent Limitations and Monitoring Requirements by Outfall

Under 327 IAC 5-2-10(a) (see also 40 CFR 122.44), NPDES permit requirements are technology-based effluent limitations and standards (including technology-based effluent limitations (TBELs) based on federal effluent limitations guidelines or developed on a case-by-case basis using best professional judgment (BPJ), where applicable), water quality standards-based, or based on other more stringent requirements. The decision to limit or monitor the parameters contained in this permit is based on information contained in the permittee's NPDES application and other available information relating to the facility and the receiving waterbody as well as the applicable federal effluent limitations guidelines. In addition, when renewing a permit, the existing permit limits, the antibacksliding requirements under 327 IAC 5-2-10(a)(11), and the antidegradation requirements under 327 IAC 2-1.3 must be considered.

5.3.1 All External Outfalls (001)

Narrative Water Quality Based Limits

The narrative water quality criteria contained under 327 IAC 2-1.5-8(b)(1) and (2) have been included in this permit to ensure that these minimum water quality conditions are met.

Flow

The permittee's flow is to be monitored in accordance with 327 IAC 5-2-13(a)(2).

5.3.2 Outfall 001

pH

Limitations for pH in the proposed permit are based on the criteria established in 327 IAC 2-1.5-8(c)(2). The previous permit allowed a daily maximum pH of 9.5 based on a request from USACE. IDEM does not believe a maximum of 9.5 is necessary and if the 9.0 limit is exceeded and the exceedance can be correlated to photosynthetic activity, the permittee can make a note of that when submitting the DMRs and MMRs. Compliance history for the facility shows only a single reported daily maximum above 9.0 since January 2018.

Oil and Grease (O&G)

O & G limitations are 15 mg/l daily maximum and 10 mg/l monthly average. These limits are considered sufficient to ensure compliance with narrative water quality criteria in 327 IAC 2-1.5-8(b)(1)(C) which prohibits oil or other substances in amounts sufficient to produce color, visible sheen, odor, or other conditions in such a degree to create a nuisance.

Total Suspended Solids (TSS)

TSS is a regulated conventional pollutant and is limited in the NPDES permit to ensure adequate wastewater treatment is provided and the narrative water quality criteria will be protected. TSS is a parameter used to protect the existing and designated uses by preventing the discharge from having putrescent, or otherwise objectionable deposits, unsightly or deleterious deposits, color or other conditions in such a degree as to create a nuisance. TSS technology-based effluent limits are always designed to protect and maintain the existing uses. The proposed monitoring requirements and effluent limitations of 10 mg/l daily maximum and 5 mg/l monthly average are based upon best professional judgment (BPJ) of the technology and corresponding effluent limitations equivalent to the Best Conventional Pollutant Control Technology (BCT), and were developed in accordance with the technology-based treatment standards requirements of 327 IAC 5-5-2(b). These limitations are the same as those in the current permit and will be retained.

Benzene and Total BTEX

Benzene is being used as an indicator of the volatile organic compounds present in the discharge. As an indicator pollutant, it is expected that if benzene is removed to an acceptable concentration, the other constituents will also be removed to a permissible concentration. However, since the composite of petroleum products is highly variable and for some petroleum products any one of the four BTEX constituents can be the predominant constituent, total BETX is being limited in the permit. Total BTEX shall be measured as the sum of benzene, toluene, ethylbenzene, and total xylene. Benzene, toluene, and ethylbenzene are identified as toxic pollutants, in accordance with CWA Section 307(a) and listed in 40 CFR 401.15.

The benzene limitation of 5 µg/l daily maximum and the BTEX limitation of 100 µg/l daily maximum have been established as BAT in accordance with 327 IAC 5-5-2. These limitations are consistent with the limits in ING080000, the IDEM Groundwater Petroleum Remediation Systems NPDES General Permit and are being retained from the current permit.

Naphthalene

Naphthalene is being monitored as an indicator parameter for semi-volatile, base/neutral compounds. The Naphthalene limitation of 10 µg/l daily maximum has been established as BAT in accordance with 327 IAC 5-5-2 and is also consistent with the limits in ING080000, the IDEM Groundwater Petroleum Remediation Systems NPDES General Permit. This limitation is being retained from the current permit.

Benzo(a)pyrene

Water-quality based effluent limitations (WQBELs) for benzo(a)pyrene of 0.18 µg/l daily maximum (0.00090 lbs/day) and 0.075 µg/l monthly average (0.00038 lbs/day) were developed in a wasteload allocation report (WLA) dated April 11, 2011 by IDEM. These limitations are being retained.

Endrin

Effluent limitations of 0.06 µg/l daily maximum for endrin were established in the 2011 permit renewal. IDEM is proposing to retain this limit in this renewal.

PCBs

Water-quality based effluent limitations (WQBELs) for PCBs of 0.0000033 µg/l daily maximum (0.000000017 lbs/day) and 0.0000014 µg/l monthly average (0.0000000070 lbs/day) were developed in a wasteload allocation report (WLA) dated April 11, 2011 by IDEM. These limitations are being retained.

Ammonia

Effluent limitations for ammonia were originally included in the 2006 permit and updated in the 2011 renewal as part of the WLA report dated April 11, 2011. Summer effluent limitations for ammonia are 2.2 mg/l daily maximum (11.0 lbs/day) and 1.1 mg/l monthly average (5.5 lbs/day).

Winter effluent limitations are 2.5 mg/l daily maximum (12.5 lbs/day) and 1.2 mg/l monthly average (6.0 lbs/day).

TRC

Due to the potential of chlorine being used to treat ammonia at the facility, IDEM is retaining the total residual chlorine (TRC) limitations of 0.018 mg/l daily maximum (0.09 lbs/day) and 0.009 mg/l monthly average (0.045 lbs/day) that were originally established in the 2006 permit. Mass limitations were included as a result of the 2011 WLA report.

Total Chromium

Water-quality based effluent limitations (WQBELs) for total chromium of 270 µg/l daily maximum (1.4 lbs/day) and 140 µg/l monthly average (0.7 lbs/day) were developed in a wasteload allocation report (WLA) dated April 11, 2011 by IDEM. These limitations are being retained.

Hexavalent Chromium

Water-quality based effluent limitations (WQBELs) for hexavalent chromium of 16 µg/l daily maximum (0.080 lbs/day) and 8 µg/l monthly average (0.040 lbs/day) were developed in a wasteload allocation report (WLA) dated April 11, 2011 by IDEM. These limitations are being retained.

Mercury

Water-quality based effluent limitations (WQBELs) for mercury of 3.2 ng/l daily maximum (0.000016 lbs/day) and 1.3 ng/l monthly average (0.0000065 lbs/day) were developed in a wasteload allocation report (WLA) dated April 11, 2011 by IDEM. These limitations are being retained.

Copper

Water-quality based effluent limitations (WQBELs) for copper of 28 µg/l daily maximum (0.14 lbs/day) and 14 µg/l monthly average (0.070 lbs/day) were developed in a wasteload allocation report (WLA) dated April 11, 2011 by IDEM. These limitations are being retained.

Zinc

Water-quality based effluent limitations (WQBELs) for zinc of 220 µg/l daily maximum (1.1 lbs/day) and 110 µg/l monthly average (0.55 lbs/day) were developed in a wasteload allocation report (WLA) dated April 11, 2011 by IDEM. These limitations are being retained.

Lead

A daily maximum effluent limitation for lead of 22 µg/l was established in the 2006 permit due to historical uses of lead at the site. A monthly average limitation of 13 µg/l was developed and included in the 2011 permit as a result of the WLA report dated April 11, 2011. IDEM is proposing to retain these limitations.

Chlordane and Heptachlor

IDEM is proposing to remove reporting for chlordane and heptachlor in this renewal. Effluent data reviewed as a part of this renewal process indicates that these pollutants are discharged below detection levels. Further, IDEM believes that retaining the effluent limitation for endrin will ensure that adequate treatment is provided to remove these parameters from the discharge.

Phenol, Benzo(a)anthracene, Benzo(b)fluoranthene, Chrysene, Pyrene

IDEM is proposing to remove monitoring requirements for the above parameters based upon a review of the monitoring data submitted with the permit renewal application.

5.4 Whole Effluent Toxicity (WET) Testing

Indiana's regulations for the Great Lakes system include narrative criteria with numeric interpretations for acute (2-1.5-8(b)(1)(E)(ii)) and chronic (2-1.5-8(b)(2)(A)(iv)) whole effluent toxicity (WET) and a procedure for conducting reasonable potential for WET (5-2-11.5(c)(1)). The U.S. EPA did not approve the reasonable potential procedure for WET so Indiana is now required under 40 CFR Part 132.6(c) to use the reasonable potential procedure in Paragraphs C.1 and D of Procedure 6 in Appendix F of 40 CFR Part 132. IDEM used this procedure in conducting the reasonable potential analysis for WET as described below.

Effluent Data

The permit renewal effective September 1, 2016 required the permittee to conduct WET testing semi-annually using *Ceriodaphnia dubia* and fathead minnow. WET data from April 2017 to October 2020 is included as Appendix B at the end of this Briefing Memo. Chronic toxicity was calculated using the No Observed Effect Concentration (NOEC) and Inhibition Concentration 25% (IC25).

Reasonable Potential Analysis for Acute WET

The WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above the numeric interpretation of the narrative criterion for acute WET at 2-1.5-8(b)(1)(E)(ii) when effluent specific WET data demonstrates that:

(TUa effluent) x (B) x (effluent flow)/(Qad + effluent flow) > AC

Where,

TUa effluent = maximum acute WET result
B = multiplying factor from 5-2-11.5(h)
Effluent flow = effluent flow used to calculate WQBELs
Qad = amount of receiving water available for dilution
AC = numeric interpretation of the narrative criterion for acute WET

For the Indiana Harbor and Canal Confined Disposal Facility, the following apply:

TUa effluent = 1.0 TUa (*Ceriodaphnia dubia*)
B = 1.0 (based on 10 samples and a CV of 0)
Effluent flow = 0.6 mgd (effluent flow used in 2011 WLA001833)
Qad = 0.0 mgd
AC = 1.0 TUa (the applicable numeric interpretation of the narrative criterion for acute WET for the case where an alternate mixing zone for acute WET has not been approved)

(1.0 TUa) x (1.0) x (0.6 mgd)/(0.0 mgd + 0.6 mgd) = 1.0 TUa

The calculated value is equal to 1.0 TUa, so there is no reasonable potential for acute WET.

Reasonable Potential Analysis for Chronic WET

The WET of an effluent is or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above the numeric interpretation of the narrative criterion for chronic WET at 2-1.5-8(b)(2)(A)(iv) when effluent specific WET data demonstrates that:

(TUc effluent) x (B) x (effluent flow)/(Qad + effluent flow) > CC

where,

TUc effluent = maximum chronic WET result
B = multiplying factor from 5-2-11.5(h)
effluent flow = effluent flow used to calculate WQBELs for individual pollutants
Qad = amount of receiving water available for dilution
CC = numeric interpretation of the narrative criterion for chronic WET

For the Indiana Harbor and Canal Confined Disposal Facility, the following apply:

TUc effluent = >16.0 TUc (*Ceriodaphnia dubia*)
B = 2.8 (based on 10 samples and a CV of 1.4)
effluent flow = 0.6 mgd
Qad = 0.0 mgd ($Q_{7,10}$ = 0.0 mgd)
CC = 1.0 TUc

(>16.0 TUc) x (2.8) x (0.6 mgd)/(0.0 mgd + 0.6 mgd) = >44.8 TUc

Since the calculated value is greater than 1.0 TUc, there is reasonable potential for chronic WET.

The permittee was previously under a toxicity reduction evaluation (TRE) due to failed WET tests; however, due to operational changes listed in Section 2.4 above, IDEM is ending that TRE and starting again with regular WET testing in this renewal. Chronic toxicity testing for *Ceriodaphnia dubia* and fathead minnow (*Pimephales promelas*) must be conducted twice annually, once during the period of May-June-July-August, and once during the period of September-October-November-December for the duration of the permit. The permit also includes a WET limit of 1.0 TUc due to the reasonable potential for chronic WET determined above.

5.5 Antibacksliding

Pursuant to 327 IAC 5-2-10(a)(11), unless an exception applies, a permit may not be renewed, reissued or modified to contain effluent limitations that are less stringent than the comparable effluent limitations in the previous permit. None of the limits included in this permit are less stringent than the comparable effluent limitations in the previous permit, therefore, backsliding is not an issue in accordance with 327 IAC 5-2-10(a)(11).

5.6 Antidegradation

Indiana's Antidegradation Standards and Implementation procedures are outlined in 327 IAC 2-1.3. The antidegradation standards established by 327 IAC 2-1.3-3 apply to all surface waters of the state. The permittee is prohibited from undertaking any deliberate action that would result in a new or increased discharge of a bioaccumulative chemical of concern (BCC) or a new or increased permit limit for a regulated pollutant that is not a BCC unless information is submitted to the commissioner demonstrating that the proposed new or increased discharge will not cause a significant lowering of water quality, or an antidegradation demonstration submitted and approved in accordance 327 IAC 2-1.3-5 and 2-1.3-6.

This permit includes new or increased permit limitations for WET. In accordance with 327 IAC 2-1.3-1(b), the new or increased permit limitations are not subject to the Antidegradation Implementation Procedures in 327 IAC 2-1.3-5 and 2-1.3-6 as the new or increased permit limitations are not the result of a deliberate activity taken by the permittee. A review of WET data indicated that the discharge has shown the reasonable potential to cause, or contribute to an excursion above the numeric interpretation of the narrative criterion for chronic WET at 2-1.5-8(b)(2)(A)(iv).

5.7 Storm Water

There are no additional storm water related requirements associated with this facility.

5.8 Water Treatment Additives

In the event that changes are to be made in the use of water treatment additives that could significantly change the nature of, or increase the discharge concentration of any of the additives contributing to an outfall governed under the permit, the permittee must apply for and obtain approval from IDEM prior to such discharge. Discharges of any such additives must meet Indiana water quality standards. The permittee must apply for permission to use water treatment additives by completing and submitting State Form 50000 (Application for Approval to Use Water Treatment Additives) available at: http://www.in.gov/idem/5157.htm and submitting any needed supplemental information. In the review and approval process, IDEM determines, based on the information submitted with the application, whether the use of any new or changed water treatment additives/chemicals or dosage rates could potentially cause the discharge from any permitted outfall to cause chronic or acute toxicity in the receiving water.

The authority for this requirement can be found under one or more of the following: 327 IAC 5-2-8(11)(B), which generally requires advance notice of any planned changes in the permitted facility, any activity, or other circumstances that the permittee has reason to believe may result in noncompliance with permit requirements; 327 IAC 5-2-8(11)(F)(ii), which generally requires notice as soon as possible of any planned physical alterations or additions to the permitted facility if the alteration or addition could significantly change the nature of, or increase the quantity of, pollutants discharged; and 327 IAC 5-2-9(2) which generally requires notice as soon as the discharger knows or has reason to know that the discharger has begun or expects to begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant that was not reported in the permit application.

There are no water treatment additives currently approved for use at the facility.

6.0 PERMIT DRAFT DISCUSSION

6.1 Discharge Limitations, Monitoring Conditions and Rationale

The proposed final effluent limitations are based on the more stringent of the Indiana water quality-based effluent limitations (WQBELs), technology-based effluent limitations (TBELs), or approved total maximum daily loads (TMDLs) and NPDES regulations as appropriate for each regulated outfall. Section 5.3 of this document explains the rationale for the effluent limitations at each Outfall.

Analytical and sampling methods used shall conform to the version of 40 CFR 136 as referenced in 327 IAC 5-2-13(d)(1) and 327 IAC 5-2-1.5. Nothing has changed to warrant modifying the monitoring conditions.

Outfall 001:

Parameter	Monthly Average	Daily Maximum	Units	Minimum Frequency	Sample Type
Flow	Report	Report	MGD	Daily	24-Hr. Total
Oil & Grease	10	15	mg/l	1 X Weekly	Grab
TSS	5	10	mg/l	1 X Weekly	24-Hr. Composite
Benzene	--------	5	µg/l	1 X Weekly	Grab
Naphthalene	--------	10	µg/l	1 X Weekly	24-Hr. Composite
BTEX	--------	100	µg/l	1 X Weekly	Grab
Benzo(a)pyrene	0.075 (0.00038)	0.18 (0.00090)	µg/l (lbs/day)	1 X Weekly	24-Hr. Composite
Endrin	--------	0.06	µg/l	2 X Monthly	24-Hr. Composite
PCBs	0.0000014 (0.0000000070)	0.0000033 (0.000000017)	µg/l (lbs/day)	2 X Monthly	24-Hr. Composite
<u>Ammonia</u> Summer Winter	 1.1 (5.5) 1.2 (6.0)	 2.2 (11.0) 2.5 (12.5)	 mg/l (lbs/day) mg/l (lbs/day)	 1 X Weekly 1 X Weekly	 24-Hr. Composite 24-Hr. Composite
TRC	0.009 (0.045)	0.018 (0.09)	mg/l (lbs/day)	1 X Weekly	Grab
Total Chromium	140 (0.7)	270 (1.4)	µg/l (lbs/day)	1 X Weekly	24-Hr. Composite
Hex. Chromium	8 (0.040)	16 (0.080)	µg/l (lbs/day)	1 X Weekly	Grab
Mercury	1.3 (0.0000065)	3.2 (0.000016)	ng/l (lbs/day)	6 X Annually	Grab
Copper	14 (0.070)	28 (0.14)	µg/l (lbs/day)	1 X Weekly	24-Hr. Composite
Zinc	110 (0.55)	220 (1.1)	µg/l (lbs/day)	1 X Weekly	24-Hr. Composite
Lead	13	22	µg/l	2 X Monthly	24-Hr. Composite
<u>WET</u> Acute Chronic	 -------- 1.0	 Report --------	 TUa TUc	 2 X Annually 2 X Annually	 24-Hr. Composite 24-Hr. Composite

Parameter	Daily Minimum	Daily Maximum	Units	Minimum Frequency	Sample Type
pH	6.0	9.0	Std Units	1 X Weekly	Grab

6.2 Schedule of Compliance

The circumstances in this NPDES permit do not qualify for a schedule of compliance.

6.3 Special Conditions and Other Permit Requirements

There are no special conditions on this permit.

6.4 Spill Response and Reporting Requirement

Reporting requirements associated with the Spill Reporting, Containment, and Response requirements of 327 IAC 2-6.1 are included in Part II.B.2.(d), Part II.B.3.(c), and Part II.C.3. of the NPDES permit. Spills from the permitted facility meeting the definition of a spill under 327 IAC 2-6.1-4(15), the applicability requirements of 327 IAC 2-6.1-1, and the Reportable Spills requirements of 327 IAC 2-6.1-5 (other than those meeting an exclusion under 327 IAC 2-6.1-3 or the criteria outlined below) are subject to the Reporting Responsibilities of 327 IAC 2-6.1-7.

It should be noted that the reporting requirements of 327 IAC 2-6.1 do not apply to those discharges or exceedances that are under the jurisdiction of an applicable permit when the substance in question is covered by the permit and death or acute injury or illness to animals or humans does not occur. In order for a discharge or exceedance to be under the jurisdiction of this NPDES permit, the substance in question (a) must have been discharged in the normal course of operation from an outfall listed in this permit, and (b) must have been discharged from an outfall for which the permittee has authorization to discharge that substance.

6.5 Permit Processing/Public Comment

Pursuant to IC 13-15-5-1, IDEM will publish the draft permit document online at https://www.in.gov/idem/5474.htm. Additional information on public participation can be found in the "Citizens' Guide to IDEM", available at https://www.in.gov/idem/6900.htm. A 30-day comment period is available to solicit input from interested parties, including the public.

Appendix A – Effluent Limitation Violations

Outfall 001

Parameter	Violation
Total Suspended Solids	
April 2019	Daily Maximum & Monthly Average
May 2019	Daily Maximum & Monthly Average
October 2019	Daily Maximum & Monthly Average
November 2019	Monthly Average
June 2020	Monthly Average
August 2020	Daily Maximum
September 2020	Daily Maximum
Ammonia (as N)	
October 2019	Daily Maximum & Monthly Average
November 2019	Daily Maximum & Monthly Average
Lead	
October 2019	Daily Maximum & Monthly Average
November 2019	Daily Maximum & Monthly Average
Benzo(a)pyrene	
October 2019	Daily Maximum & Monthly Average
November 2019	Monthly Average
PCBs	
October 2019	Monthly Average
Mercury	
August 2018	Daily Maximum & Monthly Average
June 2019	Daily Maximum
October 2019	Daily Maximum & Monthly Average
June 2020	Monthly Average
Whole Effluent Toxicity	
July 2019	Chronic (Ceriodaphnia dubia & fathead minnow)

Appendix B – Whole Effluent Toxicity Data

Indiana Harbor and Canal CDF (IN0062511) Outfall 001

Whole Effluent Toxicity Data [1]

Species: *Ceriodaphnia dubia*

	Acute WET Data			Chronic WET Data				
Date	LC50 (%)	LC50 (TU_a)	Adjusted LC50 (TU_a)	NOEC (%)	NOEC (TUc)	IC25 (%)	IC25 (TU_c)	Adjusted IC25 (TU_c)
Apr-17	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
May-17	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
May-17	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
Jun-17	>100	<1.0	1.0	50	2.0	69.4	1.4	1.4
Jun-17	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
Nov-18	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
Jun-19	>100	<1.0	1.0	13	7.7	14	7.1	7.1
Aug-19	>100	<1.0	1.0	50	2.0	40.6	2.5	2.5
Jul-20	>100	<1.0	1.0	100	1.0	43.2	2.3	2.3
Oct-20	>100	<1.0	1.0	100	1.0	<6.25	>16	16.0
n			**10**		**10**			**10**
CV			**0.0**		**1.1**			**1.4**
Maximum			**1.0**		**7.7**			**16.0**

Species: Fathead Minnow

	Acute WET Data			Chronic WET Data				
Date	LC50 (%)	LC50 (TU_a)	Adjusted LC50 (TU_a)	NOEC (%)	NOEC (TUc)	IC25 (%)	IC25 (TU_c)	Adjusted IC25 (TU_c)
Apr-17	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
May-17	>100	<1.0	1.0	50	2.0	>100	<1.0	1.0
May-17	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
Jun-17	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
Jun-17	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
Nov-18	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
Jun-19	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
Aug-19	>100	<1.0	1.0	13	7.7	18.7	5.3	5.3
Jul-20	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
Oct-20	>100	<1.0	1.0	100	1.0	>100	<1.0	1.0
n			**10**		**10**			**10**
CV			**0.0**		**1.2**			**1.0**
Maximum			**1.0**		**7.7**			**5.3**

[1] The renewal permit effective September 1, 2016 required chronic toxicity testing for *Ceriodaphnia dubia* and fathead minnow. After three tests, chronic toxicity testing was only required for the most sensitive species, but testing continued for both species. The permittee initiated a TRE after the August 2019 failure.